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United States
Department of
Agriculture

LAND AND RESOURCE MANAGEMENT PLAN

IES 677

Proposed Forest Plan

ORIGINAL

TOIYABE
NATIONAL FOREST

PREFACE

This proposed National Forest Land and Resource Management Plan (Forest Plan) was developed to direct the management of the Toiyabe National Forest. The goal of the plan is to provide a management program reflective of a mixture of management activities that allow use and protection of the Forest resources; fulfill legislative requirements; and address local, regional and national issues and concerns. To accomplish this, the Forest Plan:

ESTABLISHES THE MANAGEMENT DIRECTION AND ASSOCIATED LONG-RANGE GOALS AND OBJECTIVES FOR THE FOREST FOR THE NEXT FIFTY YEARS;

SPECIFIES THE STANDARDS AND GUIDELINES AND THE APPROXIMATE TIMING AND VICINITY OF THE PRACTICES NECESSARY TO ACHIEVE THAT DIRECTION; AND

ESTABLISHES THE MONITORING AND EVALUATION REQUIREMENTS NEEDED TO ENSURE THAT THE DIRECTION IS CARRIED OUT AND TO DETERMINE HOW WELL OUTPUTS AND EFFECTS WERE PREDICTED.

The Forest Plan will be reviewed (and updated if necessary) at least every five years. It will be revised on a ten-year cycle.

Preparation of the Forest Plan is required by the Forest and Rangeland Renewable Resources Planning Act (RPA) as amended by the National Forest Management Act (NFMA). Assessment of its environmental impacts is required by the National Environmental Policy Act (NEPA) and the implementing regulations of NFMA (36 CFR 219). The Forest Plan replaces all previous resource management plans prepared for the Toiyabe National Forest. Upon approval of the Forest Plan, all subsequent activities affecting the Forest must be in compliance with the Forest Plan. In addition, all permits, contracts and other instruments for the use and occupancy of National Forest System lands must be in conformance with the Forest Plan.

RELATIONSHIP TO OTHER PLANNING LEVELS

Development of this Forest Plan occurs within the framework of Forest Service regional and national planning. The RPA Program sets the national direction and resource levels for National Forest System lands, based on suitability and capability information for each Forest Service region. Each region disaggregation is based on the information gathered at the Forest level.

Each Forest Plan validates or provides a basis for changing the production levels assigned by the Region through the Regional Guide. Activities are planned and implemented by the Forest to carry out the direction developed in the Forest Plan.

PUBLIC REVIEW AND APPEAL RIGHTS

The opportunity to request an administrative review of a Forest Plan and Environmental Impact Statement is limited to after the issuance of a record of decision.

If any particular provision of this proposed action, or the application thereof to any person or circumstances, is held invalid, the remainder of the proposed action and the application of such provision to other persons or circumstances shall not be affected thereby.

Comments regarding this plan should be sent to the:

Forest Supervisor
1200 Franklin Way
Sparks, Nevada 89431

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Toiyabe National Forest
Land and Resource Management Plan

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Purpose of the Plan

This proposed National Forest Land and Resource Management Plan (Forest Plan) guides all natural resource management activities and establishes management standards and guidelines for the Toiyabe National Forest. It describes resource production and management as well as the availability and suitability of lands for resource management. Specifically, this Forest Plan:

-- establishes management direction and associated long-range goals and objectives for the Forest for the next fifty years (through the year 2030).

-- specifies standards and approximate timing and vicinity of practices necessary to achieve that direction.

-- establishes monitoring and evaluation requirements needed to ensure that direction is carried out and to determine how well outputs and effects were predicted.

-- will be reviewed (and updated if necessary) at least every five years. It will be revised on a ten-year cycle.

The Forest Plan embodies the provisions of the NFMA, the Regulations and other guiding documents. Land distribution, prescriptions and standards and guidelines are a statement of the Plan's management direction; however, the projected yields, services and rates of implementation are dependent on the annual budgeting process.

Relationship of the Forest Plan to the EIS

This Forest Plan is based on the various considerations which have been addressed in the accompanying Environmental Impact Statement (EIS).

The planning process and the analysis procedures used in developing this plan, as well as the other alternatives considered, are described or referenced in the EIS. Activities and projects will be planned and implemented to carry out the direction of this Plan. These local projects will be "tiered to" the accompanying EIS as provided for in 40 CFR 1502.20. 1/ The local project environmental analysis will use data and evaluation from the Plan and EIS as its basis.

1/ Refer to page I-3 of the Draft Environmental Impact Statement for a discussion on tiering.

Relationship of the Forest Plan to Regional Guide

The Regional Guide provided regional standards and guidelines and tentative Forest resource objectives from the 1980 RPA program for the Forest. These were used in formulating this plan.

Structure of the Plan

As displayed in this document, the Forest Plan provides two levels of direction: general Forest-wide management direction and specific

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direction for each management area. Direction is described in terms of management goals and objectives, Forest guidelines and Management Area management direction. The Forest Plan also specifies monitoring and evaluation.

The Forest Plan is structured as follows:

Chapter I provides an introduction to the Forest planning process.

Chapter II presents:

a. FOREST ENVIRONMENT

This subsection includes a summary of the physical, biological, social and economic environment of the Toiyabe National Forest.

b. SUMMARY OF THE "ANALYSIS OF THE MANAGEMENT SITUATION" (AMS)

-- MAXIMUM PRODUCTION POTENTIAL (Benchmarks)

The highest level of timber, recreation or wilderness that could be produced over time with regard for legal and other requirements including minimum management requirements.

-- CURRENT MANAGEMENT DIRECTION PRODUCTION (NO-ACTION ALTERNATIVE)

The level of goods and services provided under current management direction (as constrained by current Forest policies and budget) and the most likely level of goods and services to be provided under probable budgets with the continuation of current management direction.

c. DEMAND CONDITIONS

This subsection includes a summary display of projected demands for the significant goods and services. A supply and demand conditions display for each of the RPA planning periods is given.

d. RESEARCH NEEDS

This section includes the research needs identified as required under CFR 219.7(3). This set of research needs may be supplemented by additional needs identified during Plan monitoring and evaluation activities.

Chapter III shows how the Plan addresses and responds to major public issues, management concerns and resource opportunities (ICO's) identified during the planning process.

Chapter IV contains the Forest-wide multiple use goals and objectives, standards and guidelines that apply to the Toiyabe National Forest. It also provides a description of each management area and direction for its management.

VII

Chapter V discusses implementation of the proposed Forest Plan. This chapter focuses on implementation problems, provides guidance for using this document in project planning and presents implementation of the monitoring and evaluation plans.

Chapter VI is a glossary.

Chapter VII is the appendix. Appendices contain material necessary to understand and use the proposed Forest Plan.

Additional information is incorporated through references. Most of this information is available through the Toiyabe National Forest planning records. These records are available for review at the Toiyabe National Forest Supervisor's office, Sparks, Nevada.

Forest Location

The Toiyabe National Forest manages lands located along the east slope of the Sierras and adjacent mountain ranges; the Paradise, Shoshone, Toiyabe, Toquima and Monitor Ranges in central Nevada; and on Mt. Charleston near Las Vegas. The Forest provides a wide-range of resources and opportunities, including timber, range, wildlife, watershed, developed and dispersed recreation, and wilderness. The majority of Nevada's population lives less than one hour drive to the Forest.

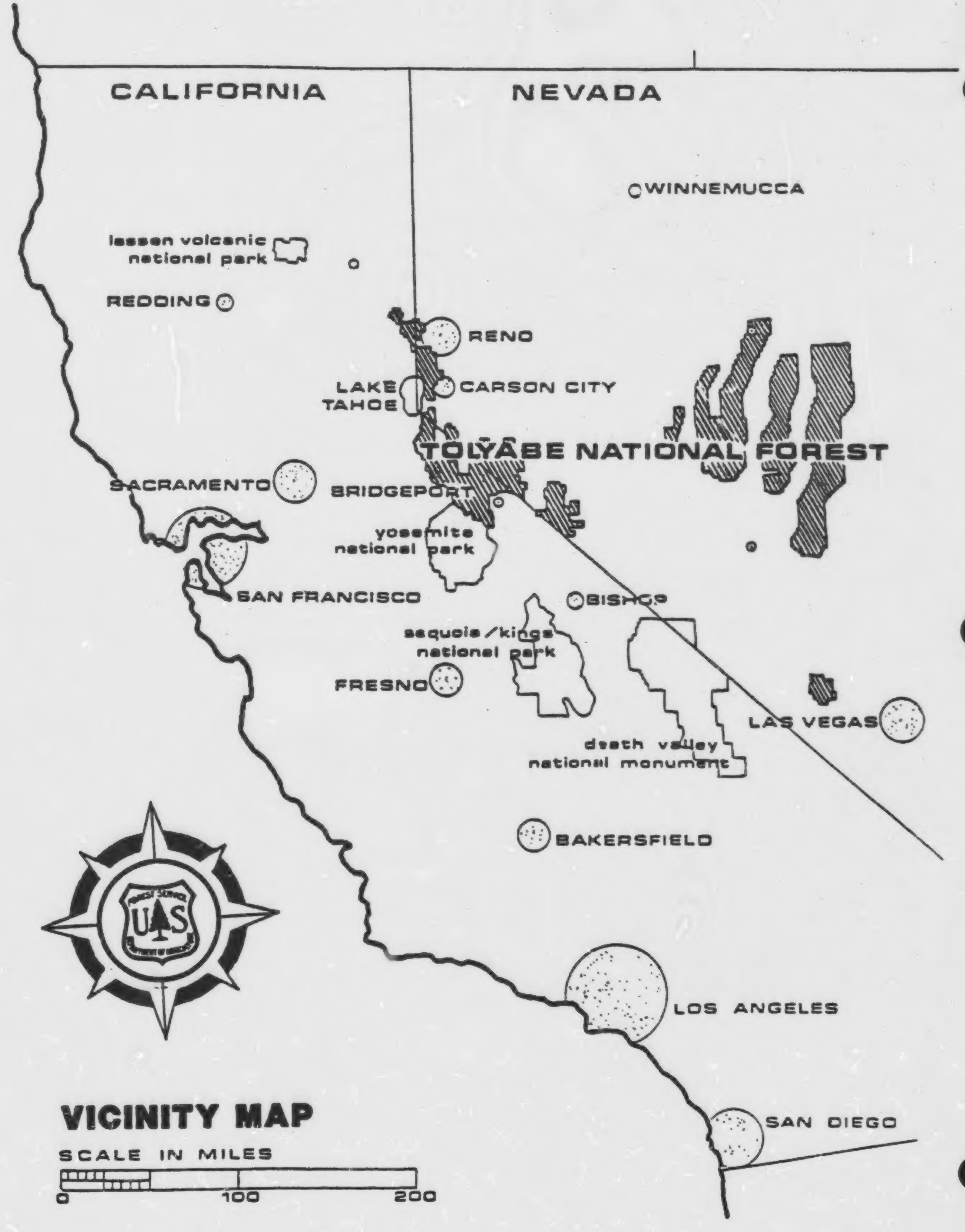
Forest Organization and Headquarters Location

The Forest Supervisor is headquartered in Sparks, Nevada. There are Ranger District offices at Carson City, Austin, Tonopah and Las Vegas in Nevada and in Bridgeport, California.

Forest Management Structure

The Toiyabe National Forest is administered by a Forest Supervisor and seven Staff Officers (Timber/Fire, Engineering, Public Information, Recreation/Lands/Minerals, Range/Watershed/Wildlife, Administration and Planning, Development and Budget). The Tonopah, Austin, Carson City, Las Vegas and Bridgeport Districts each have one District Ranger.

Employees within the Forest Supervisor's office in Sparks support the Toiyabe National Forest. On the Carson, Tonopah, Austin, Bridgeport and Las Vegas Districts, there are Range Conservationists, Foresters, Wildlife Biologists, Technicians, Forest workers, older Americans and volunteers who contribute to the achievement of the management direction of the Toiyabe National Forest.


CALIFORNIA
NEVADA
WINNEMUCCA
lassen volcanic national park
REDDING
RENO
LAKE TAHOE
CARSON CITY
TOIYABE NATIONAL FOREST
SACRAMENTO
BRIDGEPORT
yosemite national park
SAN FRANCISCO
BISHOP
sequoia/kings national park
FRESNO
LAS VEGAS
death valley national monument
BAKERSFIELD
FOREST SERVICE
U S
LOS ANGELES
SAN DIEGO
SCALE IN MILES
0
100
200

VICINITY MAP

INTRODUCTION

This subsection presents a summary of the Analysis of the Management Situation on the Toiyabe National Forest. NFMA regulations [36 CFR 219.12(e)] require an analysis of the management situation be made to determine the ability of the Forest to supply goods and services in response to society's demands. This determination provides the basis for decisions to change management emphasis, and guides the direction and extent of those changes. This subsection considers the following factors:

1. The Physical Environment
2. The Biological Environment
3. The Social and Economic Environment
4. Supply conditions for resource commodities and services:
    a. Production potential for major resources
    b. Availability of goods, services and uses under existing conditions (current management)
    c. Resource use and development opportunities
5. Projection of demand for goods, services and uses

THE PHYSICAL ENVIRONMENT

TOPOGRAPHY

The planning unit consists of all National Forest lands on the Toiyabe National Forest, with the exception of those Toiyabe National Forest lands within the Lake Tahoe Basin Management Unit. In 1973, by Presidential proclamation, a portion of the Toiyabe National Forest in the Lake Tahoe Basin became part of a special management area, the Lake Tahoe Basin Management Unit (LTBMU), along with portions of the Tahoe and Eldorado National Forests. This was established to provide special protection for the unique features of Lake Tahoe and its watershed. This area will not be covered by the Toiyabe National Forest Plan. Further mention of the Toiyabe will not include those lands in LTBMU.

The Toiyabe consists of three distinct divisions, each with different resource capabilities, issues, management concerns, and users. The three divisions are: Sierra Nevada (Carson and Bridgeport Ranger Districts), Central Nevada (Austin and Tonopah Ranger Districts) and Mt. Charleston (Las Vegas Ranger District).

The Forest falls within two analysis areas as defined by the Regional Guide: The Sierra Front and the Great Basin Analysis Area. The Toiyabe is a scattered Forest encompassing parts of western, central, and southern Nevada and eastern California.

GENERAL

Sierra Front - Approximately 700,000 acres generally lying west of US 395 along the California - Nevada border. The area supports a variety of important commercial tree species, including Jeffrey pine, white fir, California red fir, western white pine, and lodgepole pine. Lesser amounts of sugar pine, incense cedar and mountain hemlock exist. Aspen is limited and there are extensive stands of pinyon-juniper at the lower elevations. The area produces most of the water for western Nevada and includes the sources of the Carson and Walker River systems. Lakes are plentiful, visual quality is outstanding and recreation use of the area is extremely high.

Central Nevada - Includes lands in Lyon and Mineral counties in Nevada, as well as lands further east in Nye, Lander and Eureka counties. Approximately 2.4 million acres are within this unit. The area is typical of the Basin/Ranges landform in Nevada. Climatic conditions are generally harsh. Vegetation consists of primarily pinyon-juniper and sagebrush-grass types. Aspen occurs at higher elevations.

Mt. Charleston - Fifty-eight thousand acres of National Forest system land are included on Mt. Charleston near Las Vegas, Nevada. This is a thrust or fold of limestone formation rising sharply from the desert floor and includes a low desert to subalpine environment. Vegetation includes ponderosa pine, white fir, bristlecone pine, oak and pinyon-juniper.

CLIMATE

Sierra Nevada - The Sierra is heavily influenced by its close proximity to the Pacific Ocean. Annual variation in snowfall is great because of the Pacific influence. Precipitation falls mainly in the winter as snow and may total as much as 70 inches per year at the highest elevation. At the base of the Sierra Front, precipitation seldom exceeds 15 inches.

Central Nevada - Summers are hot, but winters are relatively mild. Annual precipitation averages only 5 inches in the valley to 20 inches in the higher elevations. Most of the moisture falls in winter although high, intense summer thunderstorms and flash flooding is a common occurrence.

Mt. Charleston - The summers are hot. Precipitation ranges from 11 inches to 28 inches annually, mostly in the winter as snow with intense thunderstorms in late July and early August. This unit is influenced during the summer with moisture from the Mexican Pacific Coast.

RECREATION

Developed Recreation (Public)

Some developed recreation sites within portions of the Forest are operating at well over 40 percent of their theoretical capacity (PTC). Forty percent (PTC) is the nationally accepted level of maximum advisable occupancy of a developed site (At this level of use, site deterioration may become evident).

In parts of the Forest, some campgrounds are operating consistently above 50 percent; some at 70, 80 and even 90 percent PTC. The campgrounds in Alpine County, Robinson Creek, Virginia Creek and on Mount Charleston receive the heaviest use.

Developed Recreation (Private)

There are 162 recreation special use permits on the Toiyabe, nearly all of which are on the Carson, Bridgeport and Las Vegas Districts. There are also a number of resorts based on private lands, which significantly impact the recreation resource of the National Forest.

Dispersed Recreation

Several areas of the Forest experience unusually high levels of dispersed recreation use. Three such areas are the Hoover Wilderness; the upper West Walker River drainage, which consitutes a possible addition to the Hoover Wilderness; and the upper East Carson River drainage, which is the Toiyabe portion of the Carson-Iceberg Wilderness.

The Forest manages approximately 1021 miles of trails for hiking, backpacking, horseback riding and ORV use. Many miles of the trail system are little used because of inadequate maintenance.

SCENIC RESOURCES

An inventory of the scenic resources on the Forest has been completed using the visual management system outlined in "National Forest Landscape Management, Volume 2."

The existing inventory includes the following at the end of the fifty year period.

Visual Quality Objective	M Acres
Preservation 1/	344.9
Retention	383.7
Partial Retention	1,032.2
Modification	1,172.4
Maximum Modification	238.5
	3,171.7

1/ Areas recommended for wilderness are included in "Preservation"

Wild and Scenic Rivers

Rivers that have designation potential for Wild, Scenic and/or Recreational classification were inventoried by the Former USDI Heritage Conservation and Recreation Service for possible inclusion in the National Wild and Scenic River System under Section 5(d), PL 90-542. The following rivers were inventoried:

East Walker River - From bridge crossing below Sweetwater Creek confluence to bridge crossing near headwaters of Flying M Ranch.

West Walker River - From junction of canal at northern end of Topaz Lake to source.

East Fork Carson River - From last diversion dam, approximately one (1) mile above Lahontan Fish Hatchery, to the source.

The Toiyabe N.F. has completed eligibility studies on the East Fork of the Carson River and the West Fork of the Walker. The eligibility study for these rivers is on file in the Supervisors Office. Although the eligibility study has been completed, the suitability study remains and is scheduled for completion in the Forest Plan. The Forest Service cannot designate a Wild and Scenic River. Designation authority is reserved by Congress.

The BLM has been designated lead agency for completion of the eligibility and suitability study on the East Walker River. Completion of this study will be scheduled in the BLM planning process.

In the interim, management activities will be limited to assure protection of the wild/scenic or recreational river values until recommendations and decisions are made.

PROTECTION

The Sierra

The most active fire area is the Sierra. Most emphasis in terms of organization and suppression forces is directed here. The area has become increasingly impacted by urban development, recreational use, and timber harvest (including fuelwood gathering). The area also includes three designated wildernesses. The following is a statistical breakdown of fire activity for the 10-year period 1970-1979:

1. Fires (1970-1979)

Fire by Cause		Fire by Time of Year	
Human Caused	274	Jan. - May	56
Lightning Caused	792	June - Sept.	935
		Oct. - Dec.	75
Total Fires	1,066		1,066

2. Size Class Distribution

A	B	C	D	EFG
1/4 Ac/less	2/5 Ac-9 Ac.	10-99 Ac.	100-299 Ac.	300 + Ac.
942	102	10	5	7

3. Acres Burned - 1970-1979 Period

Human Caused	2,750
Lightning Caused	3,202

Fire activity in the following decade (starting in 1981) has increased significantly. Wildfires have burned 7,000 acres during the period 1980-84 for an annual average of 1,400 acres. Most of these fires were adjacent to the urban interface. Statistics indicate that 74 percent of fire activity in this area is related to the active summer thunderstorm periods.

Generally, fire occurrence during the analysis period has decreased. The period 1970-1974 averaged 120 fires per year, while the 1975-1979 period had an average 92 fires per year. Although public use of the area has increased steadily from 1970 through 1979, the number of human-caused fires has risen only slightly while averaging 26 per year from 1970-1974, and 28 per year from 1975-1979. Increased and improved prevention programs have helped limit the occurrence of human-caused fires in spite of growing use in the Sierras. A reduction in prevention programs would likely result in a marked increase in human-caused fires.

Central Nevada

Central Nevada has not posed significant fire management problems in the past. The area has seen little developmental change in recent years, the main increase being mining activities in the past few years. Fire occurrence has not been significant, but a few major and troublesome fires have occurred.

1. Fires (1970-1979)

Fire by Cause		Fire by Time of Year	
Human Caused	32	Jan. - May	4
Lightning Caused	67	June - Sept.	90
		Oct. - Dec.	5
Total Fires	99		99

2. Size Class Distribution

A	B	C	D	EFG
1/4 Ac/less	2.5 Ac-9 Ac.	10-99 Ac.	100-299 Ac.	300 + Ac.
64	25	7	1	2

3. Acres Burned - 1970-1979 Period

Human Caused	1,191
Lightning Caused	151

Mt. Charleston

Mt. Charleston is another area subjected to critical increases in urban wildland interface. Wildfire within the two developed canyons, Kyle and Lee, are of major concern. The district has had a few large fires (largest 6,400 acres in 1981) and is the only area of the Forest where human-caused fires outnumber lightning-caused fires.

1. Fires (1970-1979)

Fire by Cause	
Human Caused	118
Lightning Caused	85
Total Fires	203

Fire by Time of Year	
Jan. - May	13
June - Sept.	163
Oct. - Dec.	27
	203

2. Size Class Distribution

A	B	C	D	EFG
1/4 Ac/less	2-5 Ac-9 Ac.	10-99 Ac.	100-299 Ac.	300 + Ac.
181	18	2	2	0

3. Acres Burned - 1970-1979 Period

Human Caused	538
Lightning Caused	14

Human-caused fires during the 1970's made up 58 percent of all occurrences. While 56 percent of all fires occurred during the first 5 years, there was an equal distribution of Class C or larger fires. The most significant change during the period was one of increased recreation use of the mountain, which maintains the high number of human-caused fires.

WILDERNESS

Existing Wilderness

The Hoover Wilderness of 48,631 acres is jointly administered by the Toiyabe and Inyo National Forests. The Toiyabe administers 39,094 acres and Inyo administers the remaining 9,537 acres.

California Wilderness Act of 1984 (CWA)

In September 1984, the New California Wilderness Act (CWA) was signed by the President. The legislation included the following on the Toiyabe National Forest.

Wilderness (CWA)

Carson Iceberg 77.0 M acres (approximate acreage)
(An additional 83.0 M acres is on the Stanislaus National Forest)

Mokelumne addition 19.0 M acres (approximate acreage)
(An additional 36.0 M acres on the Stanislaus and Eldorado National Forests)

Congressional Study Areas (CWA) (These areas require a report to the congress within three years of the date of the CWA).

Carson-Iceberg Planning Area - 9.7 M acres (approximate acreage)
Hoover Planning Area 49.2 M acres (approximate acreage)

Further Planning Areas (Retained for further study by the CWA)

Hoover Further Planning Area	54.1 M acres
Sweetwater Further Planning Area (California portion only)	40.0 M acres

Sweetwater has 40 M acres in California and 8.7 M acres in Nevada.

WATER/SOILS

Water Quantity

Nevada is the most arid state in the nation when considered on a statewide basis. Due to this moisture scarcity, there is always a greater requirement for water than there is a supply available.

Approximately 70 percent of the available water is produced on less than 14 percent of the total area of the Great Basin. The Toiyabe National Forest annually produces approximately 9490 M acre feet of water.

Water Rights

Forest Service water rights policy is to secure water needed for the management of the National Forest in the most effective and efficient manner consistent with applicable State and Federal laws.

The Toiyabe N.F. has filed approximately 450 claims for water rights with the State of Nevada since 1979. It appears that additional claims will have to be filed with the state in order to meet Forest Service policy and adhere to Nevada State water law. On the California portion of the Toiyabe National Forest, it is anticipated that few additional sources will be inventoried due to the status of the various decrees on the Carson, Walker, and Truckee rivers. See Chapter IV for instream flow requirements.

Water Storage and Impoundments

There are sixteen dams under special use permit with reservoirs that total 805 surface acres. All of these are located in the Sierra Division. A few other dams are located entirely on private or state lands within the Forest boundary. One small 10-acre reservoir is located on the Mt. Charleston Division.

Municipal Watersheds

There are nine municipalities adjacent to the Toiyabe National Forest that are served by watersheds. Management consideration has provided for the protection of water quality, quantity, and timing of the flow on these watersheds. Formal user agreements exist with only two of the nine municipalities served by the watersheds.

Water Quality

An estimated 98 percent of the runoff originating within the Toiyabe National Forest meets state and federal water quality standards. The major exception is Leviathan and Bryant Creek below the abondoned Leviathan sulphur mine located on private land within the National Forest. Mine effluent and nonpoint source pollution associated with the mine waste dumps have rendered the receiving waters unfit for beneficial uses.

Soil types

A broad spectrum of soil types occur due to wide variations in geology, climate, topography, and vegetative communities. The Forest has a range of soils supporting salt desert shrubs to subalpine vegetation. This is typical of the Great Basin Physiographic Province.

Soil productivity

Soil productivity in the Toiyabe National Forest is associated with maintaining productive soil surface horizons. Generally soil erosion is not severe; this is partly due to winter-wet/summer-dry climate.

The majority of Forest soils are within erosion tolerance limits. The exceptions are those riparians in poor and very poor condition. The granitic soils of the Sierra Batholith are very prone to soil erosion.

Soils related problems due to management activities have been minimal. When soil and water values have been given adequate consideration and constraints have been adequately implemented, roads and trails, timber harvest techniques, range and wildlife management practices have generally been successful.

For the most part, landscapes of the Forest are stable and have been stable for thousands of years. Mass failure, either natural or man-induced, has not been a significant problem on the Toiyabe.

Geologic Hazards

Identified geologic hazards on the Toiyabe are few, though there is evidence of past fault zones and slump areas.

There is, however, a great potential for earth movement on the Toiyabe. Conditions conducive to mass movement such as clay soils and steep slopes do occur.

Excessive Soil Erosion

Natural erosion rates on the Forest are generally low under present vegetative conditions. Management practices that allow soils to remain bare would lead to significant erosion. Significant erosion refers to soil erosion potentials that exceed soil loss tolerance values.

CULTURAL RESOURCES

Approximately 1500 cultural resource sites have been identified on the Toiyabe National Forest. Historical properties consist of dumps, building foundations, rock and wooden structures and various aritfacts related to early settlement of the Mormons, mining, ranching and timber industries. Prehistoric resources include isolated artifacts and features, lithic scatters, quarries, rock art, seasonal camps, and residential sites.

Currently, two sites, Gatecliff Shelter and a portion of the Belmont District, on the Forest are listed in the National Register. Approximately 400 cultural resource projects have been conducted on approximately 88,000 acres. This translates to the fact that roughly 2.8% of the Forest has been inventoried.

LAND OWNERSHIP AND LAND USES

The gross acreage within the Toiyabe National Forest boundary is approximately 3,326,966 acres, of which approximately 155,261 acres are in nonfederal ownership. Most nonfederal lands are within the Sierra Nevada division of the Forest. The pattern of land ownership often creates problems for the nonfederal land owner, as well as the Forest Service.

In addition to nonfederal land ownership, there are approximately 700 special use permits encumbering 90,000 acres of National Forest System lands. Approximately 70 percent of these permits are on the Carson and Bridgeport Ranger Districts. Utility corridors are a significant existing and potential use within the Sierra Nevada Range. Current policy for utilities is to minimize additional impacts and a proliferation of separate rights-of-way in common to the extent practical.

An additional 53,000 acres of National Forest System lands are encumbered by some 150 withdrawals. These withdrawals include administrative sites, recreation sites, reclamation projects, research natural areas, stock driveways, and archeological sites.

The Forest has over 3,700 miles of property line; roughly 1,800 miles of exterior Forest boundary and 1,900 miles of interior boundary. Less than one percent of the property line is posted to standard. To locate and post to standard the 3,700 miles of property line would require over 14,000 corners of which less than 1,600 corners are currently established.

Currently there are few lands within the Toiyabe National Forest boundary identified for disposal by land exchange. The primary exchange base for disposal of federal lands have been lands managed by the Bureau of Land Management (BLM) located outside of the Forest boundary.

FACLITIES

The Toiyabe National Forest has a variety of facilities, both Forest Service and permitted, including roads, trails, bridges, dams, ski lifts, administrative sites, buildings, and water and sewer systems; all of which provide for the development and use of the Forest resources. Facilities represent a large capital investment requiring significant amounts of time and money for operation and maintenance.

Structures and Bridges

Sixty-seven buildings exist on the Forest. The total includes: 8 warehouse buildings, (2 are leased), 12 office buildings (5 are leased), 9 special purpose buildings and 38 structures for housing government employees. In general, the condition of these structures is safe and livable with continued maintenance and upgrading to correct safety hazards.

The total number of bridges in the Forest is 30 (3 are trail bridges). These bridges are safe and generally well maintained.

Roads

The present Forest system has nearly 3,300 miles of Forest development roads. These roads were constructed and are maintained by a number of federal, state, and local agencies or by individuals under permit. Many of the existing roads on the Forest are inadequate and present problems from a maintenance and watershed standpoint. Approximately 25% of the system has been functionally classified as arterial-collector.

Roads built for mining exploration and other permitted use are the major contributors adding miles to the system. In FY 1981, approximately 90 miles were constructed under special use permits or operating plans for mineral exploration alone. About 30 percent of this road milage will ultimately be inventoried and included in the development plan. The remainder are closed or obliterated after the mining operation. Only those mining roads that are needed for National Forest management as described in the Forest Transportation Plan are placed in the system.

Trails

There are 1,021 miles of system trails within the Toiyabe National Forest. In addition, it is estimated there are several hundred miles of non-system trails which are not inventoried.

Nevada's Statewide Comprehensive Outdoor Recreation Plan (SCORP) recognizes that central Nevada has an abundance of trails which are a potentially invaluable, but underused recreation resource.

In contrast, SCORP recognizes that in western Nevada there is a general lack of certain outdoor recreation facilities, including easy access to trails. This is especially true in the Carson Range. Close-in trail heads and feeder trails are in short supply in the Reno-Sparks-Carson City vicinity.

There are three existing trails of national status on the Toiyabe, with a total of 150 miles. They are the Pacific Crest National Scenic Trail (approximately 75 miles are found within the Carson and Bridgeport Districts), the Toiyabe Crest National Recreation Trail (approximately 67 miles in central Nevada, on the Austin and Tonopah Districts), and the Mt. Charleston National Recreation Trail (approximately 8 miles, on the Las Vegas District).

Two proposed trails of national status which would cross the Forest are in preliminary stages of planning. Both would be interstate trails. The Western States Trail crosses the Forest near Mt. Rose and drops off the Carson Range to Washoe Valley. The other, the High Desert Trail, would traverse central Nevada, running from Oregon into southern California. A proposed "rim" trail around Lake Tahoe Basin will be partially within the Toiyabe National Forest.

Transportation and Utility Corridors

Growth in Nevada, particularly the eastern slope of the Sierra, including the Las Vegas District, has brought an increasing demand for energy and communications. New power-generating plants are planned throughout the west, including Nevada.

The first priority is to expand existing corridors and sites to utilize their maximum capacity within environmental and site limits. This will be done before any new corridors or sites are opened. The Western Regional Corridor Study with proposals to 1990 will be used in the evaluation to determine future needs.

LAW ENFORCEMENT

The Forest Service is responsible for the enforcement of federal laws and regulations as they relate to the National Forest System. This responsibility cannot be delegated to any other agency or local law enforcement entity.

Theft of timber is by far the most significant law enforcement problem on the Forest. Estimates due to theft are in the millions of board feet, with cost figures of loss and resource damage conservatively placed around $100,000.

MINERALS AND ENERGY

Availability

The Forest is known to contain extensive mineral resources. Although energy resources have not been developed, a moderate potential exists for production of oil/gas, geothermal, and uranium resources.

With very minor exceptions, all minerals within the Toiyabe are owned by the United States and are subject to disposal under three categories--locatables, leaseables, or common variety. Public domain lands, unless withdrawn, are open to mineral exploration and development under the mining laws.

Locatables

Approximately 10,500 mining claims have been staked and recorded ((FLPMA)) within the Forest. Actual number could exceed 15,000 claims. The general geographic breakdown of recorded claims follows: As of 1981.

Sierra Nevada 1/	2,900 claims
Central Nevada	
Paradise Range	1,100 claims
Shoshone Range	700 claims
Toiyabe Range	1,300 claims
Toquima Range	4,400 claims
Monitor Range	100 claims
Mt. Charleston	
Total	10,500 claims

Ending FY 1981, there were 252 active operating plans pursuant to 36 CFR 228 on the Forest. The general geographic breakdown of the active operating plans follow 2/:

Central Nevada	186 operating plans
Sierra and adjacent lands in Mineral County, Nevada	66 operating plans
Las Vegas	-0-
Total	252 operating plans

1/ Includes California
2/ Data is displayed on maps in the Forest Supervisor's office.

Operating plans submitted have increased at approximately 50 percent per year during the last 5-year period.

There are a total of 15 producing mines, with an estimated annual project value of approximately 108 million dollars.

Gold - Most of the gold being mined on the Toiyabe is being mined from large, near-surface, low-grade disseminated gold deposits. The mining is being done by open pit mine methods.

Silver - Most of the silver produced from the Toiyabe is being produced in conjunction with gold mining operations.

Barite - During 1981, it was estimated that 350,000 short tons of barite were produced from the Toiyabe. This amounts to a little over 10 percent of the total barite consumed in the U.S. during 1981.

Magnesium Compounds (Magnesite and Brucite) - One large open pit mine on the Forest in central Nevada (Gabbs, Nevada) produces an estimated 300,000 short tons of magnesite and brucite per year.

Iron - The Forest has one small iron mine located in central Nevada. The mine produces an estimated 2,000 long tons of iron ore per year which is used in the basic refactory industry in Gabbs, Nevada.

Molybdenum and Tungsten - Prospecting and exploration for these two commodities is expected to remain strong through 1986. No properties on the Forest are expected to come into production before 1986.

Uranium - Exploration on the Forest was strong up to 1981, but has fallen off dramatically due to environmental and safety concerns associated with the use of nuclear fuels for energy production, the mining of uranium ore and the handling and disposal of nuclear waste. No properties on the Forest are expected to come into production in the future.

Gemstones - Turquoise, variscite, tourmaline, beryl, agate, picturestone, and quartz crystals are found on the Forest.

Leaseables

Oil and Gas - There are 50 oil and gas leases or leases pending within the Forest. These include 30 leases in central Nevada and 20 on Mt. Charleston. None exist in the Sierra Nevada.

Geothermal - There are 21 geothermal leases or leases pending within the Forest, totaling approximately 47,000 acres. These are evenly distributed between the Sierra Nevada Districts and central Nevada.

Coal - There are no coal reserves known on the Forest. The potential for coal being found and produced on the Forest is very remote.

Common Variety

Sand, building stone, and gravel are considered as common variety or salable mineral material. These materials are normally dispersed to private parties by competitive or noncompetitive sales.

RESEARCH NATURAL AREAS (RNA)

The Research Natural Area (RNA) is a USDA designation that recognizes the importance of setting aside certain areas for research and educational purposes.

Existing Research Natural Areas

Carpenter Canyon (Mt. Charleston) - vegetation types: Bristlecone pine, Interior Ponderosa pine, pinyon pine, alpine meadows and barren. The area is approximately 2500 acres.

Mt. Jefferson (central Nevada) - vegetative types: Aspen, limber pine, subalpine meadows. This area is approximately 2500 acres.

Sweetwater (western Nevada) - vegetative types: Pinyon-juniper, Great Basin sagebrush. This area is approximately 2,235 acres. The area has been heavily disturbed by mining activity and no longer meets the objective of the original research natural area classification. The area will be maintained until disestablished.

Proposed Research Natural Areas

Another area, Babbitt Peak, has been evaluated jointly with the Tahoe National Forest. This area includes vegetative types of Washoe pine, red fir, Western white pine and mountain hemlock. This area is approximately 960 acres on the Toiyabe and 2500 acres on the Tahoe National Forest.

National Natural Landmarks

The National Park Service (USDI) maintains a national inventory of significant natural landmarks. The Ichthyosaur Paleontalogic State Monument is a registered Natural Landmark. The area is located on National Forest lands in central Nevada and operated under special use permit by the Nevada State Department of Parks. Additionally, the Park Service had inventoried potential additions to the register. The potential sites on the Forest include:

Mt. Jefferson, Sweetwater and Carpenter Canyon - The same areas as described for the Research Natural Area(s).

Arc Dome - Located within the proposed Arc Dome Wilderness. Includes the Dome, elevation of 11,775 feet.

Wild Granites - This is a granite outcrop along the east slope of the Toiyabe Range in central Nevada.

AIR QUALITY

Pollution of the air resulting from Forest or range management activities is not a critical problem on the Toiyabe. The only Clean Air Act Class I area is the Hoover Wilderness. The remaining area within the Forest is classified

Class II. Prescribed burning has occurred away from urban development and at high elevations. As a temporary emission source, it does not significantly deteriorate ambient areas. Prevailing westerly and southwesterly winds contribute to good smoke dispersal. Burning activities are associated with logging and fuelwood slash removal and range and wildlife habitat improvement. Wildfire continues to be a major source of smoke and contributes significantly to air pollution.

Prescribed fire to enhance the diversity of Forest and range ecosystems will continue, as it remains the most cost-effective and energy-efficient treatment method in most cases. Increased prescribed fire will occur in suitable areas of the Forest.

BIOLIGICAL CHARACTERISTICS

ECOSYSTEM

The following is a brief description of the three divisions comprising the Forest:

Sierra front: The area supports a variety of important commerical tree species, including Jeffrey pine, white fir, California red fir, western white pine, and lodgepole pine. Lesser amounts of sugar pine, incense cedar and mountain hemlock exist. Aspen is limited. There are extensive stands of pinyon-juniper, sagebrush and bitterbrush.

Central Nevada: Climate conditions are generally harsh and vegetation consists of pinyon-juniper and sagebrush-grass types. Aspen occurs frequently at higher elevations.

Mt. Charleston: Vegetation includes ponderosa pine, white fir, bristlecone pine, oak and pinyon-juniper. There has been no permitted livestock grazing or commerical timber harvest over the last 20 years and the predominant use is recreation.

RANGE

The Forest has 122 livestock allotments that are managed under one of four levels of management and 14 Wild Horse and Burro Territories that are under extensive management.

Grazing capacity estimates suggest 114,000 Animal Unit Months (AUM's) by the 3rd planning decade available for grazing or browsing. Under current management, domestic livestock use is 98,500 AUM's and Wild Horse and Burro Use is 4,300 AUM's. Current management direction could, by 2030, increase livestock use to 102,000 AUM's and decrease wild horse and burro use to 4,200 AUM's.

The wild horse population has decreased on 8 of the 14 territories.

TIMBER

Lands capable, available, and tentatively suitable for timber production were determined in accordance with regulations in 36 CFR 219.14 and documented in the timber section of AMS.

Three different timber management situations exist on the Forest. The Sierra Nevada supports commercial stands of Jeffrey pine, the true firs and lodgepole pine, with lesser stands of white pine and mountain hemlock.

The Toiyabe has been selling 6,000,000 board feet of timber annually, primarily in sawlog size material from the Alpine County and Dog Valley areas. Other districts provide products such as posts, Christmas trees, pinyon nuts, and firewood.

The primary sivilcultural system used in recent years has been shelterwood. Removal cuts have been made in stands with good existing understories of saplings and poles. These understories have been thinned by removal through sawlog and fuelwood operations.

Future Condition Under Current Management

Over a 200 year period, the condition of Toiyabe's timber stands are decribed below:

Jeffrey pine

a. Within recommended Wilderness - The pine continues toward older age classes.

b. Nonwilderness areas - Age class distribution improves although there remains an excess acreage of small sawtimber 70-90 years of age.

Mixed Conifer

a. Within recommended Wilderness - The mixed conifer continues toward older age classes.

b. Nonwilderness areas - Age distribution improves except there is a shortage of small sawtimber 70-90 years of age.

Lodgepole Pine

As there is no regulated harvest, the Lodgepole pine working group moves toward over maturity and age class distribution becomes greatly unbalanced after 200 years.

Firewood

Requirements for firewood have increased dramatically in the last several years.

Current amount supplied is at a level which will probably continue for at least the next 20 years along the Sierra Front. Should the amount supplied be increased to a level equal to the amount needed per year, the available firewood would be exhausted in several years time. Need is currently greater than supply, and this need should continue to increase. Some of this increased need will be met on neighboring Forests. The amount available for harvest in central Nevada is quite large and is higher than the quantity demanded, due chiefly to its inaccessability and distance from large populations.

Pinenuts

Amount of pinenuts is primarily dependent on weather conditions; thus, the Forest has little control on this output other than to open up more marginal areas. However, much of the potential harvest on the marginal and other areas is needed by wildlife for food and continuing renewal of trees. Need is currently less than the amount of pinenuts offered and should remain fairly constant.

Miscellaneous Products

Miscellaneous products include posts, poles, and Christmas trees. There is an increasing need for poles for the house log industry and for fence posts. Currently, there are no area mills that can handle the small size of these logs to convert them into lumber.

Christmas tree need is very high in all areas of the Forest (Sierra Front, Central Nevada and Las Vegas). In the Northern Sierra Front area, only a minimum amount of trees are harvested (in conjunction with firewood permits) as there is not an adequate resource to meet the existing need. The Las Vegas District does not have Christmas tree sales due to lack of excessive trees that could be cut. The Bridgeport District allows harvest of pinyon pine trees. The BLM also supplies pinyon pine trees in this area. Currently, the products available can handle the need.

WILDLIFE AND FISH

The Forest has a variety of game and nongame wildlife and fish species common to the Great Basin. Of particular interest are the Paiute and Lahontan cutthroat trout. Fish, such as brown, brook and rainbow trout, as well as nongame fish occupy the 1,660 miles of perennial streams on the Toiyabe. Mule deer, desert bighorn sheep and elk (central Nevada and Las Vegas), sage grouse, blue and mountain quail are some of the important game species. In addition to game species, most of the vertebrate species are nongame and provide important social and ecological values.

Current Wildlife Use (By ten year period)
MWFUDS
Planning Period (Decade)

	1	2	3	4	5
Fisheries	2,742	3,018	3,252	3,252	3,252
Wildlife	1,382	1,498	1,595	1,595	1,595

Sensitive Plant Species

Currently, fifty-six plant species of National Forest System lands are classified as sensitive. Eight occur in California and fourty-eight occur in

Nevada. None of these plants are listed as endangered or threatened or have been formally proposed for listing. Eight of the forty-eight plants are of candidate status. The others are of watch status. Table ___, page ___ lists the sensitive plants.

Forest Service representatives participate in annual workshops to discuss the status of sensitive plants of California and Nevada.

The sensitive plants are poorly understood. The Sweetwater Mountains including the Wellington Hills, is the only area on the Forest where intensive work has been completed on sensitive plants. Extensive collections have been made on the Toiyabe, Toquima, and Monitor Ranges of central Nevada. With the exception of some isolated collections on other portions of the Forest, such as Mount Charleston, much remains to be done to obtain an adequate survey and assessment of sensitive plants.

Current field work occurs during the environmental analysis of each ground disturbing activity to determine whether known or suspected locations of sensitive plants and their habitat occur.

Threatened and Endangered Species

Two species on the Toiyabe are federally classified as threatened: The Lahontan cutthroat trout and the Paiute cutthroat trout. The Peregrine falcon and the bald eagle, federally classified as endangered, are considered migrants or visitors, using the Toiyabe during migration and in the winter months. Primary efforts in the threatened and endangered program have been to assist and cooperate with the State Fish and Game agencies in the recovery of Lahontan and Paiute cutthroat trout.

Big Game Species

The Toiyabe and the Nevada Department of Wildlife have reintroduced bighorn sheep on the Tonopah Ranger District.

Two migrating deer herds, the Lassen-Washoe and the Carson-Walker, are impacted by growth and private land development. The loss of winter range and the disruption of traditional migration corridors are a problem.

Management Indicator Species (MIS)

The NFMA regulations require that the Forest maintain viable populations of all vertebrate wildlife species native to the Forest. In order to implement this requirement, Management Indicator Species (MIS) have been selected to represent the significant ecosystems on the Forest and the associated wildlife that depend upon those ecosystems. These species will be monitored, as necessary, to meet NFMA requirements. The criteria below were used to select the Management Indicator Species. These species were selected in consultation with the University of Nevada, Nevada Department of Wildlife, and California Department of Fish and Game. See monitoring plan in Chapter V for list of MIS species.

1. Threatened or endangered species (Federal list).
2. Threatened or endangered species (State list).
3. Considerable concern for species related to laws and regulations.

4. Species for which there are conflicts, concerns, or issues.
5. Species for which the planning area comprises a majority of habitat or use.
6. Species upon which management activities could significantly impact habitat or foreclose future options.
7. Representative species of environmental suitability for for other species.
8. Species having significant economic value.

State Fish and Wildlife Objectives

The primary agencies that relate to the wildlife objectives on the Toiyabe are the Nevada Department of Wildlife and the California Department of Fish and Game. In accordance with Public Law 93-452 (Sikes Act), which provides for cooperation in fish and wildlife habitat programs on federal land between state and federal governments, a program for managing fish and wildlife was developed for National Forest lands in California and Nevada. These documents contain the goals, objectives and an "Action Plan" for the respective state wildlife agencies and the Forest Service.

Wildlife Habitat Management

Emphasis in wildlife habitat management has been (1) improving habitat through pinyon-juniper removal and (2) restoring key meadow and riparian habitats through use of human resource programs such as the Youth Conservation Corps. The introduction of elk in central Nevada was made possible by the habitat improvement work accomplished through human resource programs. The loss of human resource programs has sharply curtailed the Forest's ability to complete and maintain labor-intensive habitat improvement projects the last few years. The Forest has improved 700 to 800 acres of habitat annually through vegetative manipulation and constructed an average of 6-10 structures annually.

FOREST INSECT AND DISEASE

The principal insects and disease affecting the Toiyabe N.F. are Jeffrey pine beetle, mountain pine beetle, western pine beetle, roundheaded pine beetle, dwarf mistletoe, root and heart rots, and Elytroderma needle disease.

Jeffrey pine beetle is the most destructive pest of Jeffrey pine. Epidemics of this beetle have cycled through the host type for many years, with the current outbreak starting in Dog Valley in the early 1970's. By 1978, widely scattered tree killing occurred throughout the host type from Mount Ina Coolbrith, northwest of Reno, south to Bridgeport.

Mountain pine beetle has been killing ponderosa and lodgepole pine in the Lake Tahoe Basin since the 1950's. Current infestations are causing group tree mortality along the eastern shore of Lake Tahoe.

Western pine beetle has been killing ponderosa and lodgepole pine in the Lake Tahoe Basin since the 1950's. Current infestations are causing group tree mortality along the eastern shore of Lake Tahoe.

Western pine beetle has been active in the ponderosa pine type on Charleston Mountain since 1952. Mature and overmature ponderosa pine in the Spring Valley Mountain were killed by roundheaded and western pine beetles following a drought in 1966. This infestation continued through 1973 and caused heavy losses in developed recreation sites.

Douglas-fir tussock moth reached outbreak proportions in two isolated areas of southern Nevada in 1972. Heavy defoliation of white fir stands occurred near a Boy Scout Camp in the Spring Mountains and on sixty acres in the Virgin Mountains. The outbreaks declined by 1974. Some heavily mistletoed trees succumbed from heavy defoliation and bark beetle attacks.

Dwarf mistletoe causes significant losses to infected stands. A roadside survey of the Toiyabe National Forest in 1978 indicated that 35 percent of the ponderosa pine and Jeffrey pine and 17 percent of the Lodgepole pine types were infested with dwarf mistletoe. White fir is also heavily infected with dwarf mistletoe throughout the Forest. In addition to causing significant losses in commercial timber stands, dwarf mistletoe infection can have severe impacts on trees in recreation areas. Heavily infected trees are susceptible to bark beetle attack.

Root rots caused by *Fomes annosus* and *Armillaria mella* cause mortality and growth loss in localized centers. *Fomes annosus* centers have been found in ponderosa pine, Jeffrey pine, and White fir stands in the following locations: Roberts Canyon, Willow Creek, Shingle Mill Flat, Hope Valley, Bootleg Canyon, Dog Valley, and Incline Village on the north shore of Lake Tahoe. *Armillaria mellea* was found to be prevalent in hardwood and white fir stands in the Lake Tahoe Basin.

All species of trees on the Forest are suspectible to one or more of the various heart rot fungi. The fungi infect trees through dead branch stubs, wounds, and fire scars. These rots eventually destroy the heart wood of infected trees, resulting in the loss of volume and causing structural weakness of the trees affected. Such trees are subject to wind and snow breakage and are particularly hazardous in recreational and residential areas.

Elytroderma needle disease can reduce growth and vigor, and increase mortality of Jeffrey pine, ponderosa pine, and lodgepole pine. Although the disease usually occurs at low levels in the Forest, it can build up to epidemic proportions in some years on some sites. A study of such an outbreak in Jeffrey pine in the Lake Tahoe Basin showed significant reduction in growth and increased mortality resulting from severe infection. In some cases, mortality was associated with Jeffrey pine beetle attack.

The identified need of thinning adequate acreages to keep stands growing at good growth rates can be tied to stand hazard rating for bark beetle attack to ensure the highest hazard stands are thinned first.

Dwarf mistletoe control programs have been a part of the Toiyabe silvicultural practices for several years. However, these have been accomplished only where thinning or timber sale activity caused stand manipulation.

Fomes annosus infection centers need to be identified, evaluated, and monitored to prevent future spread of this root rot. In areas identified as infection centers, new infections can be prevented by treating freshly cut, uninfected stumps with Borax. Control measures for Fomes annosus need to be evaluated to determine the most cost-efficient way.

Detection consists of annual aerial flights by the Regional entomologist and pathologist to determine new outbreaks of insects and/or disease. This detection is supplemented by ground observation by Forest personnel. Evaluations are annually made resulting in treatment activities. Historically this treatment has been removal through fuelwood cutting or tree removal. Herbicide treatment has been limited to high value sites such as campgrounds and summer homes sites.

Prevention efforts include integrated pest management techniques and thinning of overstocked stands to minimize bark beetles and mistletoe.

RANGELAND INSECT AND DISEASES:

The diversity of rangeland insects and diseases is very large. However, the insects and diseases are a poorly understood component simply because of the low acre value of rangelands. The return per acre has not supported their control or their study.

Many of the insects may be classified as pests of rangeland, but only a few may be regarded to be serious pests. The chewing insects of shrubs are most conspicuous; whereas, the sucking insects of shrubs largely go unnoticed. Each year, very, very, small outbreaks occur, but no major outbreaks have occurred. The Great Basin tent caterpillar, which defoliates bitterbrush, is watched for because of its potential to cause widespread damage to this important browse shrub. Another insect watched for is the sagebrush defoliator, which has the potential to kill or seriously injure sagebrush over large areas.

The chewing insects of grasses and forbs are the most apparent of the insects that are associated with grasses and forbs. Although outbreaks have occurred in Nevada, no outbreaks have occurred on the Forest. The chewing insects watched for are grasshoppers, morman cricketts, and range caterpillars. Several kinds of ants are present. The conical mounds, surrounded by large denuded areas, of the western harvester ants, are not only quite visible but also very numerous. These ants, undoubtedly, remove a great amount of vegetation each year, lowering the production of important range plants.

The sucking insects of grasses and forbs are not easily seen, largely because the resulting damage is difficult to detect. However, no outbreaks have been observed. The sucking insects watched for are leafhoppers, aphids, scales, and black grass bugs. The black grass bugs recieve special attention because of their ability to do an enormous amount of damage to stands of wild rye grass and crested wheatgrass, which are two very important range grasses, extensively present on the Forest.

The need to control insects on the Forest rangelands has not risen. The control of grasshoppers and morman crickets is an ongoing project in Nevada, conducted by the Animal and Plant Health Inspection Service. Forest Service representatives periodically meet with APHIS representatives to assess the need for their control as well as other insects on National Forest System lands.

ECONOMIC AND SOCIAL SETTING

ZONE OF INFLUENCE

The Toiyabe National Forest administers 3,171,705 net acres of land in ten Nevada counties and seven California counties. The following counties represent the primary zone of influence for the Forest: Carson City, Clark, Douglas, Eureka, Lander, Lyon, Mineral, Nye, and Washoe in Nevada; and Alpine, Mono, and Sierra in California. A secondary Zone of Influence includes Churchill, Esmeralda, and Storey counties in Nevada and the Central/Southern California area.

The Secondary Zone includes areas that are not directly affected by the actions of the Toiyabe. However, the Toiyabe provides recreational opportunities and fuelwood for many residents of these areas.

The Forest's primary Zone of Influence has a population of over 750,000. Of this, 741,021 reside in Nevada, which is 93% of that state's population. In the California counties, there are 12,747 residents, which is only .05% of that state's population. Clark and Washoe counties in Nevada, which contain the cities of Las Vegas and Reno, have a population of over 655,000, which is 82% of the population of Nevada. These two cities are the major trade centers for much of western and southern Nevada and eastern California. The other counties in the zone, with the exception of Carson City, tend to be rural in nature and are more dependent on the large population centers for most services.

Even though Nevada is commonly thought of as a rural state, with a population density of 7.2 people per square mile, the population densities of the Nevada counties in the zone vary from a high of 209.3 people per square mile in Carson City to a low of .3 in Eureka. Generally, the counties in central Nevada have very low population densities, while Clark, Douglas, and Washoe have population densities of 57.1, 25.9, and 29.3 respectively.

In California, the counties in the Zone of Influence also have low population densities of 1.5, 2.8, and 3.2 for the counties of Alpine, Mono, and Sierra, respectively.

All of the counties in Nevada have a large percentage of land that is in federal government ownership. Douglas County has the least amount with 37.9%, while Nye County has the greatest amount with 92.7% in Federal ownership. The average for the nine counties is 72.9%.

In California, the percentage of Federal ownership ranges from a high of 88.7% in Alpine County to a low of 69.0% in Sierra County.

Minorities make up 17.8% of the population in the zone. The largest group consists of Blacks at 6.3%, followed by Hispanics at 6.1%, Asians with 1.7%, and Native Americans with 1.3%. Most of the Zone of Influence minority population is in Clark and Washoe Counties and the cities that have the largest populations are Las Vegas and North Las Vegas. The minority populations are generally congregated in the more urban areas, with the exception of the Native Americans who are located in both urban and rural areas and on reservations and colonies.

Hispanic Americans are also located in rural counties and along with the Native Americans comprise the significant minority groups in less populated areas. The influence on Native American colonies and reservations by the National Forest is probably most pronounced in the Alpine, Dresslerville, and Woodfords colonies and the Yomba Reservation due to their close proximity to Forest Service lands.

GEOGRAPHIC UNITS OF ANALYSIS

The counties comprising the primary zone are grouped into four broad areas based on geographic continuity and simularity of resource outputs. These areas are: Northern Sierra, which includes the counties of Carson City, Douglas, and Washoe in Nevada, and Alpine and Sierra in California; Southern Sierra, which includes the counties of Lyon and Mineral in Nevada and Mono in California; central Nevada, which includes the counties of Eureka, Lander, and Nye; and Las Vegas, which is in Clark County.

Northern Sierra

This area is part of the Sierra Front which supports a variety of important commercial tree species including Jeffrey pine, white fir, California red fir, western white pine and lodgepole pine. Aspen is limited and there are extensive stands of pinyon-juniper at the lower elevations.

The Toiyabe National Forest has averaged about 6MMBF cut annually for the last 10 years. Most of this is from the Northern Sierra part of the Forest. Of the mills processing timber that are located in or near the Zone of Influence, only the mill in Gardnerville, which employes about 100 workers, receives about 80% of its sawtimber from the Toiyabe. The other mills receive most of their sawtimber from adjacent Forests (i.e. Eldorado, Tahoe, and Plumas) who have larger allowable cuts, and to a smaller degree, from private lands.

The Forest is currently ranked 19th nationally for recreational use on National Forest Service lands (2nd in the entire Region), with an average over the past three years of 2,947 MRVD's a year. Of this, 21.2% of the recreational use occurs in the Northern Sierra unit, which includes the Slide Mountain Ski Area. Most of the recreational users of this area originate from central California, the Bay area, Reno, and Carson City.

Overall, the Toiyabe National Forest has very little economic impact on this area. It is estimated, from an input/output computer model called IMPLAN, that only 0.3% of the people employed in this area depend upon outputs from National Forest System lands. The income earned by them is also only 0.3% of the total income.

Southern Sierra

This area is similar in vegetation to that of the Northern Sierra area. This area, along with the northern area, produces most of the water necessary to support western Nevada. These areas include the sources of the Carson and Walker River systems.

Of the Forest's total recreation output, 44.3% of the RVD's occur in this area, and most of these users originate from southern California.

According to the IMPLAN estimates, the outputs produced in this area have more affect on the local communities than is the case in any of the other units. It is estimated that 4.7% of the people employed in this area depend upon outputs from National Forest system land. The income earned by them is only 3.7% of the total income.

The area that would receive the greatest impact in this unit would be Bridgeport, California in Mono County. This community is highly dependent upon the recreation and wildlife users of the Forest, and the direct effects along with a majority of the indirect effects of any change in these outputs would probably be centered in this town. Grazing use is another output that has some considerable impacts on quite a number of people in this area, although no one community would be greatly impacted.

Central Nevada

This area is typical of the Basin/Ranges landform in Nevada. The climatic conditions are generally harsh and the vegetation consists of pinyon-juniper and sagebrush-grass. Domestic livestock grazing and the mining of gold, silver, uranium, and barite are the principal activities. The area near Tonopah and Austin has also been considered as a potential site for MX missle.

Of the Forest's total recreation output, 13.9% of the RVD's are spent in this area with most of the users originating from central Nevada.

It is estimated that only 2.6% of the people employed in this area depend upon outputs from National Forest system land. The income earned by them is only 1.5% of the total income. The grazing and dispersed recreation activities have the most impact on the area and a change in grazing use would have its greatest impact on the town of Austin.

Las Vegas

This unit includes the 58,000 acres of National Forest system lands around Mt. Charleston. It provides an environment from the low desert to the subalpine. There has been no livestock grazing or commercial timber harvest on this unit for the past two decades and the predominant use is recreation.

21.6% of the Forest's total recreation output, or a little over 636,500 RVD's occur in this area. Obviously, this shows the intense recreational use that is placed on only 58,000 acres, with most of the people coming from the Las Vegas area. The use figure does however include the use from the Lee Canyon Ski area.

In terms of the impacts of Forest Service actions on local communities, it is estimated that only 0.2% of the labor force in Clark County depends upon the outputs from the Forest. The income earned by them is also 0.2% of the total income. The only real impact that any Forest Service action could have on the local communities in this area would be on those businesses and services that are oriented toward the recreationist.

In all the units of analysis, there is a significant demand for fuelwood. This demand has been increasing, primarily due to the increased costs of heating fuels. The supply Forest-wide however, is limited by poor access and availability of suitable woodcutting sites. This is especially true in the Sierra influence zones, where most of the demand occurs. In the central Nevada unit, the supply exceeds the demand, but it is also limited by poor access.

SUPPLY CONDITIONS

Benchmark level analyses were performed to (1) determine supply potentials for five resources (developed recreation, dispersed recreation, wilderness, timber, and range), (2) derive reference points against which Toiyabe National Forest alternatives (displayed in the accompanying Draft Environmental Impact Statement (DEIS) could be developed and (3) define the range within which feasible alternatives could be formulated (the "decision space"). Benchmarks also provide a basis for analyzing trade-offs between alternatives and analyzing the constraints imposed by laws and regulation. They are the results of a systematic objective analysis primarily performed in FORPLAN.

Three of these types of benchmarks developed for the Toiyabe National Forest are: (1) minimum level, (2) maximum resource levels for developed recreation, dispersed recreation, wilderness, timber and range, (3) current management. A more detailed presentation of this material is available in the accompanying Draft Environmental Impact Statement (Appendix B), the Analysis of the Management Situation on the Toiyabe National Forest and in the planning records located at the Toiyabe National Forest headquarters in Sparks, Nevada.

Minimum Level Benchmark

Minimum level benchmark is designed to estimate naturally occurring outputs and costs of maintaining the Forest as part of the National Forest system. Minimum level is a management strategy that would meet only the following statutory requirements: administration of unavoidable non-discretionary land uses, prevention of impairment of the productivity of the land and protection of the life, health and safety of incidental users.

Current Management Benchmark

Current management benchmark represents the current program based on existing policies, standards and guidelines. It continues the present course of action based on established goals and objectives which have been modified to meet and respond to present and projected program levels and consumptive demand.

Maximum Timber Benchmark

This benchmark maximizes the production of timber with maintenance of viable wildlife populations and without permanent impairment of soil and water productivity. A "single resource emphasis" analysis was performed in FORPLAN to determine the timber production potential of the Toiyabe National Forest. A second step of this analysis involved rerunning the FORPLAN model to determine the most cost efficient set of prescriptions to achieve the maximum timber production level.

All land area classified as tentatively suitable for timber production was included. There were no yield or budget constraints applied. There were no timber yields in excess of maximum expected use.

Maximum Dispersed Recreation Benchmark

This benchmark maximizes dispersed recreational opportunities in the Forest. "Single resource emphasis" analysis was used in the FORPLAN model to determine maximum dispersed recreation supply (in recreation visitor-days) without preference to any ROS class. A second analysis was performed in the FORPLAN model to determine the most cost efficient set of prescriptions to achieve this production level.

Maximum Developed Recreation Benchmark

This benchmark maximizes developed recreational opportunities on the Forest regardless of budgetary restrictions. "Single resource emphasis" analysis was used in the FORPLAN model to determine the maximum production level of developed recreation supply (in recreation visitor-days). A second analysis was performed in FORPLAN to determine the most cost efficient set of prescriptions to achieve this production level. Constraints used to model this benchmark can be found in Appendix B.

Maximum Wilderness Benchmark

This benchmark maximizes wilderness recreational opportunities in the Toiyabe National Forest regardless of budgetary restrictions. "Single resource emphasis" analysis was used in the FORPLAN model to determine the maximum production level of wilderness opportunities (in recreation visitor-days). A second analysis was performed in FORPLAN to determine the most cost efficient set of prescriptions to achieve this production level.

Maximum Present Net Value (Market Values) Benchmark

This benchmark maximizes peresnt net value for all resources with established market values. In Toiyabe National Forest, these resources include timber and developed recreation. Dollar values used in the economic analysis are based on "willingness to pay". Values for timber were based on historical data from timber sale reports. Developed recreation values were obtained from RPA values.

Distribution of the Toiyabe National Forest into management areas according to this benchmark was spatially infeasible. This benchmark meets the minimum management requirements and would not impair the productivity of the land. No restraints were applied to the budget or the production of resources. Yields in excess of demand trends were not valued in the economic analysis.

Maximum Present Net Value (Assigned Values) Benchmark

This benchmark maximizes present net value for all resources with established market or assigned values. In Toiyabe National Forest, these resources include timber, developed and dispersed recreation, wilderness, water, wildlife and fish. Dollar values are based on "a willingness to pay". RPA values serve as the standard for all outputs except timber. Timber values were calculated based on historical data.

This benchmark is spatially feasible. It meets the minimum management requirements and would not impair the productivity of the land. No restraints were applied to the budget or the production of resources. Yields in excess of demand trends were not valued in the economic analysis.

Maximum Grazing Resource

Production of forage and livestock was emphasized within the minimum constraints of law without impairing range production. Reasonable biological potential was developed and was not constrained by budget or policy.

Minimum Wilderness

This benchmark minimized the acres of areas that were roadless going to recommended wilderness. All other outputs were allowed to seek a level that would maximize the net public benefit.

DEMAND CONDITIONS

The demand projections for timber, wildlife, fisheries, developed recreation, dispersed recreation and wilderness opportunities are displayed in Table II-1.

The Regional targets in the 1980 RPA program correspond very closely with the demand trends established in the assessment for all resource element yields in Region 4. The distribution of these targets in the Regional Guide were generally accepted as the best estimate of quantity demanded with the RPA values. A horizontal demand through this quantity was further assumed over a specified range. In the case of timber yields, a horizontal demand was assumed to apply over + 50 percent range. For other resources, the RPA output figures were used over the fifty year planning horizon.

Developed Recreation (Public)

Based on population growth trends and various recreation growth rates evident in different sectors of the Forest, it appears that an average of 360 family units (1,800 persons-at-one-time, PAOT) will need to be constructed each decade to satisfy the expected recreation demand.

Developed Recreation (Private)

It seems likely there will continue to be applications for new kinds of recreation special uses, such as river running. Over the last 10 years, special use permits for floating the East Carson River have been in great demand. Helicopter skiing also has become popular in the Sierra Division.

Wilderness Need

The demand for wilderness, especially in the Sierra Nevada, is continuing to accelerate. Without intensive administrative control of user numbers and use patterns, or without the provision of new classified wilderness, unacceptable levels of resource deterioration will continue in many options of existing or recommended wilderness. The demand for wilderness was partially satisfied by passage of the California Wilderness Act except for the planning areas which are yet to be decided. In Nevada the the demand will be partially met with the recommended wilderness additions. Congress will ultimately assess the demand for wilderness against the need for other resources.

Fish and Wildlife Use

Some decrease in hunting may be taking place because Nevada (1976) and California (1978) have changed their system for allocating deer tags. Nevada indicates the request for deer tags is actually 100 percent greater than the actual use. Since their program is succeeding in producing quality animals and a quality hunting experience, the future need will likely increase even more rapidly. California is not presently turning away deer hunters; however, in some areas on the Toiyabe, the Department is seriously contemplating limiting hunters. California Department of Fish and Game records show a slow but steady increase in deer hunters on the Toiyabe National Forest.

Data for the past 10 years indicates an overall increase in fisherman use on the Carson and Bridgeport Ranger Districts, while central Nevada has experienced a significant increase. California Department of Fish and Game indicated that, with the exception of years 1974 and 1975, there has been a slight but steady increase in fishing demand. California Fish and Game also indicate the increase is expected to continue and peak, then stabilize before 2020. Nevada Department of Wildlife reports similar use, except the use is not expected to peak and stablilize prior to 2020.

The need for other fish and wildlife activities is expected to increase more rapidly. Trapping activities for furbearers, such as coyotes and bobcats, have increased significantly. Applications to hunt bighorn sheep far exceed quotas in Nevada. Sage grouse hunting seasons are severely restricted because the use far exceeds the resources. Projections to the year 2000 in Nevada for sage grouse, bighorn sheep, and some other species, are down. Human use of nongame wildlife, such as bird watching and photography, as evidenced by the increased growth in memberships of wildlife and nature groups, indicates these activities will increase. Many fish and wildlife species are expected to decline, while for other species increased populations are expected. Even with projected increases in population of some species such as deer and antelope, it is not expected that the State wildlife agencies can meet the consumptive and nonconsumptive public use.

Range

The demand for grazing exceeds current grazing estimates. The Forest has only one (1) vacant allotment and there is continual public demand for any permits that become available.

Timber

Timber has been bid above the appraised value in most sales. There are several mills in the area. All the mills except one are dependent on timber from other Forests. One mill is approximately 80 percent dependent on the Toiyabe National Forest, with the remaining mills using Toiyabe timber supplementally.

Firewood

Requirements for firewood have increased dramatically in the last several years. Data is available regarding consumption for the last three years. Consumption in Fy 1979 was 5,802 cords, 1980 was 7,321, and 1981 was 3,992 on paid permits. Free use totaled approximately 13,000 cords in 1979 and 18,500 cords in 1980. This consumption is highly influenced by fire season. 1981 was a dry year with the woodcutting areas closed for a significant portion of the season due to the fire danger. Consumption in the Northern Sierra Front area is primarily used by Reno-Sparks area residents. The Southern Sierra Nevada area is used by Carson City, Tahoe, Minden/Gardnerville, and surrounding area residents along with some commercial woodcutting. The firewood harvest in central nevada where the resource far exceeds demand is limited due to distance from population centers. Las Vegas has no firewood harvest due to lack of firewood.

Current amount supplied is at a level which will probably continue for at least the next 20 years along the Sierra Front. Should the amount supplied increase to a level equal to the amount needed per year, the available firewood would be exhausted in several years time. Need is currently greater than supply, and this need should continue to increase. Much of this increased need will be met on the neighboring Forests. The amount available for harvest in central Nevada is quite large and is much higher than the quantity demanded, due chiefly to its inaccessiblity and distance from large populations.

Research Needs

The Toiyabe lacks sufficient information in vegetation management to adequately manage its non forested lands. Research that has been completed in other areas cannot be extrapolated to the Toiyabe due to our unique weather patterns. The higher elevation sage brush types have a predominance found no where else. Our own research has concentrated on watershed, pinyon-juniper, and shrub research. The University of Nevada has completed most of their research on low elevation ranges. We have the following research needs:

1. Riparian classification and management strategies.

2. Management strategies for pinyon-juniper.

3. High elevation sage brush ecological sites (those above pinyon-juniper) needs, physiology, antecology, syecology, and management strategies.

4. Ecological analysis and trends on Mt. Charleston.

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TABLE II- 1   SUPPLY AND DEMAND COMPARISON FOR THE TOIYABE NATIONAL FOREST

Program Element and Activity	Unit of Measure	1986 1990	1991 2000	2001 2010	2011 2020	2021 2030
RECREATION						
Developed Recreation Use	Thousand RVDs					
Maximum Expected Use*		1096	1125	1171	1246	1315
Maximum developed Benchmark		1096	1210	1360	1555	1670
Forest Plan		1096	1125	1171	1246	1315
Current Management Benchmark		892	544	456	456	456
Minimum Level Benchmark		0	0	0	0	0
Dispersed Recreation Use	Thousand RVDs					
Maximum Expected Use*		2169	2397	2578	2764	2862
Maximum Dispersed Benchmark		2149	2397	2578	2764	2862
Forest Plan		1851	2157	2489	2489	2489
Current Management Benchmark		1898	2337	2578	2690	2690
Minimum Level Benchmark		1548	1513	1353	1353	1353
WILDERNESS						
Wilderness Use	Thousand RVDs					
Maximum Expected Use*		1221	1317	1399	1399	1399
Maximum WildernessBenchmark		1221	1317	1399	1399	1399
Forest Plan		630	675	719	719	719
Current Management Benchmark		300	300	300	300	300
Minimum Level Benchmark		100	100	100	100	100
WILDLIFE AND FISHERIES						
Wildlife Habitat Improvement	Thousand Acres					
Forest Plan		3.4	3.4	3.4	3.4	3.4
Current Management Benchmark		2.8	2.8	2.8	2.8	2.8
Minimum Level Benchmark		0.0	0.0	0.0	0.0	0.0
Management Indicator Species						
Goshawk (pairs)	Breeding Pairs					
Maximum Expected Population		132	132	132	132	132
Forest Plan		66	75	80	85	85
Current Management Benchmark		60	60	60	60	60
Minimum Level Benchmark		55	55	55	55	55
Pine marten	Thousand Animals					
Maximum Expected Population		3.4	3.4	3.4	3.4	3.4
Forest Plan		.85	.95	.95	.95	.95
Current Management Benchmark		.85	.85	.85	.85	.85
Minimum Level Benchmark		.8	.8	.8	.8	.8
Paiute cutthroat trout **	Fish/mile/stream					
Maximum Expected Population		460	460	460	460	460
Forest Plan		230	380	450	450	460
Current Management Benchmark		230	300	450	450	450
Minimum Level Benchmark		230	230	230	230	230
Lahontan cutthroat trout **	Fish/mile/stream					
Maximum Expected Population		400	400	400	400	400
Forest Plan		225	380	400	400	400
Current Management Benchmark		200	200	200	200	200
Minimum Level Benchmark		200	200	200	200	200

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TABLE II- 1   SUPPLY AND DEMAND COMPARISON FOR THE TOIYABE NATIONAL FOREST

Program Element and Activity	Unit of Measure	1986 1990	1991 2000	2001 2010	2011 2020	2021 2030
WILDLIFE AND FISH						
Management Indicator Species						
Williamson's sapsucker (pairs)	Thousand Animals					
Maximum Expected Population		10.2	10.2	10.2	10.2	10.2
Forest Plan		3.4	3.4	3.4	3.4	3.5
Current Management Benchmark		3.4	2.7	2.7	2.7	2.7
Minimum Level Benchmark		2.1	2.1	2.1	2.1	2.1
Hairy woodpecker (pairs)	Thousand Animals					
Maximum Expected Population		21.6	21.6	21.6	21.6	21.6
Forest Plan		5	5	5	5	5
Current Management Benchmark		5	4.4	4.4	4.4	4.4
Minimum Level Benchmark		2.5	2.5	2.5	2.5	2.5
Mule deer	Thousand Animals					
Maximum Expected Population		71	71	71	71	71
Forest Plan		29	32.5	33.6	33.6	33.6
Current Management Benchmark		29	29.7	29.7	29.7	29.7
Minimum Level Benchmark		29	29	29	29	29
Sage grouse	Thousand Animals					
Maximum Expected Population		35.2	35.2	35.2	35.2	35.2
Forest Plan		18.0	20.0	23.0	25.0	27.0
Current Management Benchmark		17.3	17.3	17.3	17.3	17.3
Minimum Level Benchmark		17.3	17.3	17.3	17.3	17.3
Yellow warbler (pairs)	Thousand Animals					
Maximum Expected Population		12	12	12	12	12
Forest Plan		5.6	5.6	5.6	5.6	5.6
Current Management Benchmark		6	5	4.8	4.5	4
Minimum Level Benchmark		4	4	4	4	4
Palmer's chipmunk	Thousand Animals					
Maximum Expected Population		7.5	7.5	7.5	7.5	7.5
Forest Plan		6.6	6.6	6.6	6.6	6.6
Current Management Benchmark		6.6	6.6	6.6	6.6	6.6
Minimum Level Benchmark		5.3	5.3	5.3	5.3	5.3
Yellow-bellied sapsucker	Thousand Animals					
Maximum Expected Population		2.5	2.5	2.5	2.5	2.5
Forest Plan		1.5	1.5	1.5	1.5	1.5
Current Management Benchmark		1.5	1.5	1.5	1.5	1.5
Minimum Level Benchmark		.9	.9	.9	.9	.9
Macroinvertebrates(BCI)						
Maximum Expected Population		110	110	110	110	110
Forest Plan		75	77	78	78	78
Current Management Benchmark		75	70	70	70	70
Minimum Level Benchmark		41	41	41	41	41
Dispersed Wildlife Use						
General Forest Area	Thousand of WFUDs					
Maximum Expected Use*		660	660	660	660	660
Maximum Wildlife Benchmark		660	660	660	660	660
Forest Plan		447	526	565	606	628
Current Management Benchmark		338	377	410	410	410
Minimum Level Benchmark		290	290	290	290	290

TABLE II- 1 SUPPLY AND DEMAND COMPARISON FOR THE TOIYABE NATIONAL FOREST

Program Element and Activity	Unit of Measure	1986 1990	1991 2000	2001 2010	2011 2020	2021 2030
WILDLIFE AND FISH						
Dispersed Wildlife Use						
Wilderness	Thousand of WFUDs					
Maximum Expected Use*		290	290	290	290	290
Maximum Wildlife Benchmark		290	290	290	290	290
Forest Plan		77	77	77	77	77
Current Management Benchmark		74	74	74	74	74
Minimum Level Benchmark		18	18	18	18	18
Improvement	Thousand of WFUDs					
Forest Plan		15.0	16.0	16.0	16.0	16.0
Current Management Benchmark		8.1	8.1	8.1	8.1	8.1
Minimum Level Benchmark		0.0	0.0	0.0	0.0	0.0
RANGE						
Domestic Livestock (Permitted Use)	Thousand AUMs					
Maximum Expected Use*		120	120	120	120	120
Maximum Range Benchmark		96	108	110	110	110
Forest Plan		98	98	98	98	98
Current Management Benchmark		98	98	98	98	98
Minimum Level Benchmark		0	0	0	0	0
Wildhorses (Permitted Use)	Thousand AUMs					
Maximum Expected Use*		7.5	7.5	7.5	7.5	7.5
Maximum Range Benchmark		5.5	5.5	5.5	5.5	5.5
Forest Plan		5.4	5.4	5.4	5.4	5.4
Current Management Benchmark		4.3	4.2	4.2	4.2	4.2
Minimum Level Benchmark		4.1	4	4	4	4
TIMBER						
Program Sales Offered	Million CF					
Maximum Expected Use*		2.2	2.2	2.2	2.2	2.2
Maximum Timber Benchmark		2.2	2.2	2.2	2.2	2.2
Forest Plan		.7	.7	.7	.7	.7
Current Management Benchmark		.9	.9	.9	.9	.9
Minimum Level Benchmark		.0	.0	.0	.0	.0
	Million BF					
Maximum Expected Use*		14	14	14	14	14
Maximum Timber Benchmark		14	14	14	14	14
Forest Plan		4.5	4.5	4.5	4.5	4.5
Current Management Benchmark		6	6	6	6	6
Minimum Level Benchmark		0	0	0	0	0
Fuelwood	Thousand CF					
Maximum Expected Use*		1080	1080	1080	1080	1080
Maximum Timber Benchmark		690	690	690	690	690
Forest Plan		587	587	587	587	587
Current Management Benchmark		561	561	561	561	561
Minimum Level Benchmark		0	0	0	0	0
	Thousand Cords					
Maximum Expected Use*		12.0	12.0	12.0	12.0	12.0
Maximum Timber Benchmark		7.7	7.7	7.7	7.7	7.7
Forest Plan		6.5	6.5	6.5	6.5	6.5
Current Management Benchmark		6.7	6.7	6.7	6.7	6.7
Minimum Level Benchmark		0.0	0.0	0.0	0.0	0.0

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TABLE II-2 WILD AND SCENIC RIVER ELIGIBILITY STUDY

EAST FORK CARSON RIVER

Free-Flowing Natural	Length	Water Volume	Outstanding Remarkable Values	Water Quality	Conclusions
No impoundments or or other unnatural alterations of significanct nature to disqualify.	The River is being considered in three areas - Wild Area from source - 27 miles, all within proposed Carson-Iceberg Wilderness. Scenic River Area- 19.5 miles from Hangman's Bridge to Ruhenstroth Dam. Recreational area- from the mouth of Wolf Creek to Hangman's Bridge.	The discharge ranges from a low of about 30 cfs to a high of over 3200 cfs. There is generally suffiacient volume for raft trips from April to early July. Fishing is good from June to end of season.	Wild River Area- wilderness quality terrain. Varies from alpine to pine forest with waterfalls, and historic values. Scenic River Area - has dispersed recreation, wildlife and historic value. Recreational River Area - has recreation, wildlife and historic values.	Water quality is sufficient to allow contact recreation.	The East Fork Carson flows through lands administered by U.S.F.S. & B.L.M. as well as privately owned. Lower scenic portion is being studied by U.S. Water and Power Resources Services from Watasheamu Dam. Even though the basic criteria are met, the decision to designate a wild, scenic or recreational river needs further study and coordination.

WEST FORK OF THE WALKER

Free-Flowing Natural	Length	Water Volume	Outstanding Remarkable Values	Water Quality	Conclusions
No impoundments on the entire length. The portion from the Forest boundary north has extensive agriculture to its banks and many canals and diversions with several road crossings. The portion from the confluence with the Little Walker	54 miles total. 36 miles within National Forest Boundary. Little Walker confluence to boundary, 9 miles. Leavitt Meadows, 11 miles. Leavitt Meadows to source including west fork, 16 miles.	There is sufficient volume to permit enjoyment of water related outdoor recreation activities generally associated with comparable rivers. Due to an abundance of rocks in the Little Walker to Forest boundary portion watercraft	Portion from source to Little Walker confluence has outstanding scenic, recreation, and wildlife values. Portion from source to Leavitt Meadows is within a recommended wilderness. Portions from Little Walker to Forest boundary is af-	Water quality is sufficient to allow contact recreation.	BLM has on interest in that portion from the Forest boundary to Topaz Lake due to extensive agriculture and lack of any public land on the shore line for the entire length of this portion. Dis-

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Free-Flowing Natural	Length	Water Volume	Outstanding Remarkable Values	Water Quality	Conclusions
north to the Forest boundary is paralleled closely by U.S. 395 causing the road to be very conspecious. The portion from Little Walker to Leavitt Meadows is paralleled by state 108. It is not as conspicuous as U.S. 395 due to a combination of distance, topography, and vegetation. From the source to Leavitt Meadows the River is located in a recommended wilderness.		recreation is nearly impossible and dangerous. Above the Little Walker watercraft recreation marginal due to low volume.	fected by the parallel highway but canyon appears undeveloped in nature otherwise. Portions of this river expecially from Leavitt Meadows, including the West Fork, has significant historic identity.		qualification indicated for this portion. Little Walker to Forest boundary qualifies as a recreational river (9 miles). Leavitt Meadows to Little Walker qualifies as a scenic river (11 miles). Source to Leavitt Meadows qualifies as a wild river (16 miles).

EAST FORK OF THE WALKER

Free-Flowing Natural	Length	Water Volume	Outstanding Remarkable Values	Water Quality	Conclusions
No impoundments for entire lenght. Dirt road parallels river closely for 1/2 mile. Some irrigated pasture land on private land on upper 1 mile.	5 miles within National Forest most (80%) on private land.	Sufficient volume of water related activities generally associated with comparable rivers. Water volume not sufficient for watercraft recreation.	Identified as in the top 10% of free flowing rivers in great basin province.* Outside this region and compared with rivers it is not outstandingly remarkable.	Water quality is sufficient to allow contact recreation.	BLM has classified their portion (Forest Boundary to Flying M Ranch) as scenic under an administrative designation. BLM administers 17 of the 22 miles of subject river section. BLM will not consider recommendation for study if at all until their 1986 Walker Unit Land Use Plan. BLM has not yet recommended study for this river,

Free-Flowing Natural	Length	Water Volume	Outstanding Remarkable Values	Water Quality	Conclusions
					the Forest Service portion cannot stand alone with designation and the majority of the Forest Service portion is in private ownership making it unmanageable as a wild and scenic river. Disqualifiaction is indicated.
			*Source National Park Service Study.		

TABLE II-3

ELECTRONIC/ANTENNA SITES

DISTRICT	SITE NAME	KIND	
		ELECTRONIC	ANTENNA
Carson	Galena	X	
	Slide Mountain	X	
	Snow Valley Peak	X	
	Spooner Ridge	X	
	Hawkins Peak	X	
	Leviathan Peak	X	
	Monument Peak		X
Bridgeport	Mean Peak	X	
	Lost Cannon	X	
	Sonic Mountain	X	
	Lobdell Summit	X	
	Pine Grove	X	
	Desert Creek Peak	X	
	Virginia Lakes	X (SCS)	
	Hunewill Hills	X	
	Sonora Junction	X	
	Sweetwater	X	
	Sonora Pass	X (SCS)	
	Buckeye Roughs	X (SCS)	
	Center Mountain	X (SCS) (Within Hoover Wilderness)	
Austin	Bunker Hill	X	
	Austin Peak	X	
	Bald Mountain (Monitor)	X	
	Bald Mountain (Ione)	X	
Tonopah	Shoshone Peak	X	
	Stone Cabin	X	Mt. Jefferson X
	Peavine Peak	X	
Las Vegas	Harris Peak	X	

National Forest land and resource management planning is "issue oriented". NFMA Regulations [36 CRF 219.12(f)(4)] state:

> Alternatives shall provide different ways to address and respond to the major public issues, management concerns, and resource opportunities identified during the planning process.

This chapter will describe how the Toiyabe National Forest Land Resource Management Plan responds to major public issues, management concerns and resource opportunities (ICO's).

The "issues, concerns and opportunities" phase of the Toiyabe National Forest land and resource management planning process resulted in the identification of eleven issue topics. (This phase of the planning process is detailed in the process record _Major Issues, Concerns and Opportunities to be Addressed in the Toiyabe Land Managment Plan_ on file in the Forest Supervisor's office in Sparks, Nevada.

PLANNING ISSUE 1:

HOW SHOULD THE VARIOUS RECREATION ACTIVITIES ON THE FOREST BE ALLOCATED TO BEST MEET THE NEEDS OF A VARIETY OF RECREATIONAL VISITORS?

There will be construction of twelve new campgrounds in the Sierra Front on the most economicial sites and reconstruction of existing sites within this Plan. In addition to the developed recreation construction, construction/reconstruction of 40.9 miles of trails will enhance the dispersed recreation resource. Sixteen additional trail heads will be constructed in the Sierra Front and Central Nevada. There will be an emphasis on improving midweek use of facilities at Mt. Charleston. This total construction/reconstruction will supply an additional 5,150 People at One Time (PAOTs).

The Toiyabe National Forest contains five Recreation Opportunity Spectrum (ROS) settings: rural, roaded natural, semi-primitive motorized, semi-primitive non-motorized and primitive. This Plan would offer the following recreational opportunities based on ROS settings.

ROS SETTING	ACRES	MMRVDs*
Primitive	147,394	4.700
Semi-primitive non-motorized	1,373,108	18.950
Semi-primitive motorized	1,087,100	18.900
Roaded natural	536,310	118.000
Rural	21,272	75.538

This Plan offers an increased mixture of acreage and recreational opportunities in the ROS settings as presently exists. Scenic values will increase due to decreased timber harvesting and the same level of activity as presently exists in mineral exploration and leasing.

The East Carson and West Walker rivers are eligible for wild and scenic and/or recreational river classification. The East Walker may be eligible pending a study. Lands surrounding the East Fork of the Carson, the West Fork of the Walker and the East

Fork of the Walker Rivers will be protected to maintain their present scenic values. These river corridors will be protected until suitability studies and a recommendation can be made.

PLANNING ISSUE 2:

HOW SHOULD THE FOREST RESOURCES BE MANAGED FOR TIMBER IN (A) SIERRA DIVISION (B) PINYON-JUNIPER TYPE (C) LAS VEGAS (MT. CHARLESTON)?

Timber will come mainly from Dog Valley, Walker, Alpine County and the Carson front. Even-age management would be the primary silvicultural system used with both natural and artificial regeneration practices employed. Uneven-aged management would be used on a case by case basis for special managment objectives (Old growth habitat, special wildlife habitat requirements, visual quality objectives). There will be 11,173 acres of the Toiyabe National Forest "intensively" managed for the production of timber (with constraints to provide for the minimum management requirements of all forest resources). There will be 59,410 acres managed to provide a mixture of forest resources (similar to current management). There will be management of the pinyon-juniper working group in central Nevada which will produce 56,600 Christmas trees, 1,625 tons of pinyon pine nuts and 25,450 posts and poles. On the Mt. Charleston area, management of the resident stands will occur, mainly for the control of insect and disease, esthetics and retaining the ponderosa pine status. This Plan will provide for fuelwood thru both free use and fuelwood sales. This Plan identifies 70,583 acres of the Toiyabe National Forest as being available and suitable for timber production (refer to Tables IV- 4 and IV- 7 of this Plan).

PLANNING ISSUE 3:

(A) HOW SHOULD THE FOREST BE MANAGED AND/OR USES ADJUSTED TO MAINTAIN THE FLOW OF HIGH QUALITY WATER?

(B) HOW SHOULD AQUATIC AND RIPARIAN HABITATS BE MANAGED SO THEIR QUALITY IS MAINTAINED OR IMPROVED?

(C) HOW SHOULD THE FOREST BE MANAGED AND/OR USES ADJUSTED TO MAINTAIN SOIL PRODUCTIVITY?

This Plan contains Forest-wide standards and guidelines (beginning on page IV- 3) designed to protect soil and improve productivity, water quality and riparian areas. Ninty-five percent of the riparian ares will be improved to satisfactory condition.

Over the fifty year period, 1,700 acres will be treated to improve watershed and range conditions.

PLANNING ISSUE 4:

HOW SHOULD THE RANGELANDS ON THE TOIYABE NATIONAL FOREST BE UTILIZED TO MEET THE NEEDS OF LIVESTOCK, WILDLIFE, WATER, WILD FREE-ROAMING HORSES AND BURROS, AND OTHER RESOURCE USES?

Conflicts in use of range by big game and livestock will be reduced as range condition improves and wildlife habitat improvements are completed. Elk population in central Nevada is expected to level off within 20 years. All allotment management plans will be completed and implemented by 1995. The Toiyabe NF will coordinate and work with both California and Nevada State wildlife agencies to assure State goals and objectives are met. Approximately 95% of the range will be in satisfactory condition by 2030. This satisfactory condition will greatly improve long term soil productivity.

PLANNING ISSUE 5:

HOW SHOULD THE FOREST TRANSPORTATION SYSTEM BE PLANNED, MANAGED AND MAINTAINED SO AS TO PROVIDE ACCESS TO NATIONAL FOREST LANDS AND RESOURCES?

The management prescriptions contained within this Plan contain schedules for the construction of system roads within individual Management Areas. The road system will be located by Forest Engineers to facilitate multiple resource management. All roads will be designed, constructed and maintained according to the standards and guidelines within the management prescriptions.

PLANNING ISSUE 6:

(A) TO WHAT EXTENT, SHOULD THE FOREST ACQUIRE NEW LANDS INTO THE NATIONAL FOREST SYSTEM AND WHERE?

(B) WHAT UTILITY CORRIDORS, SUBSTATION SITES AND ELECTRONIC SITES ARE NEEDED AND WHERE?

(C) WHAT PUBLIC ACCESSES (RIGHTS-OF-WAY) ARE NEEDED AND WHERE?

This Plan contains a land adjustment directive which permits the adjustment of National Forest ownership to accommodate the goals and objectives of this alternative.

This Plan will set a priority of acquiring important winter habitat along the Reno-Carson Front, lands in Hope Valley and on Mt. Charleston.

This Plan provides for the designation of the following utility corridors:
- I-80 (Donner Pass Area)
- US 50 East (Bob Scott Summit area)
- Sylmar-Los Angeles Transmission Line (East of Mono Lake)

A window for possible new utilities is established north and south of Kingsbury (Daggett Pass) from the Meyers-Buckeye line north to the Buckeye-Round Hill line, Luther Pass and Armstrong Pass. Specific project location will be handled through the Environmental Analysis process if and when a project is proposed.

Specific projects proposed for construction will be handled through the Environmental Analysis process as will requests for new utility corridors.

PLANNING ISSUE 7:

HOW SHOULD THE FOREST BE UTILIZED TO SATISFY NATIONAL NEEDS FOR MINERALS AND ENERGY RESOURCES WHERE OTHER RESOURCE OPPORTUNITIES WOULD BE FORGONE?

This Plan will have 211.5 M acres of roadless areas designated as wilderness recommendation. Of these acres designated, 40.4 M acres have high mineral potential and will not be available for exploration. The level of the mineral program in the Plan will be moderate to high and designed to develop the mineral resources while protecting the surface resources. There will be accelerated response to the 12,069 operating plans. The Plan will provide the sale of common variety minerals.

Forest-wide standards and guidelines are provided for the management of the oil, gas and mineral resources.

PLANNING ISSUE 8:

SHOULD THE FOREST RECOMMEND WILDERNESS DESIGNATION FOR ANY OF THE AREAS INVENTORIED UNDER THE REVISED STUDY? IF SO, WHICH ONE(S)?

This Plan incorporates the decisions contained in the California Wilderness Act of 1984. The Forest has 135,100 acres of wilderness. The Plan will recommend the following additional areas for wilderness designation.

California	
Hoover Planning Area	49,200 acres
Carson Iceberg Planning Area	4,900 acres
Nevada	
Mt. Jefferson	31,000 acres
Arc Dome	94,400 acres
Mt. Charleston	32,000 acres
Total	211,500 acres

All other areas will be returned to non-wilderness management for the first planning cycle.

PLANNING ISSUE 9:

HOW SHOULD THE TOIYABE NATIONAL FOREST BE MANAGED TO MAINTAIN AND IMPROVE WILDLIFE AND FISH HABITATS?

This Plan contains a number of policies, management practices, standards and guidelines designed to benefit a variety of wildlife species on the Forest.

(1) Coordination with the Nevada Department of Wildlife, and California Department of Fish and Game remains a top priority in the annual wildlife and fisheries program. Regulation of hunting and fishing remains in the authority of the State organization. Habitat protection and management is a Forest Service responsibility.

(2) This Plan utilizes Management Indicator Species (MIS) to measure the effects of management activities on different wildlife and plant

habitats. Some MIS will be emphasized within management areas in response to demand for these species.

(3) This Plan maintains viable populations of all native vertebrate and plant species.

PLANNING ISSUE 10:

HOW SHOULD THE TOIYABE NATIONAL FOREST RESPOND TO THE IMPACTS FROM URBAN ENCROACHMENT INTO THE FOREST ALONG THE RENO-CARSON FRONT, AND GENERAL POPULATION INCREASE IN CENTRAL NEVADA?

This Plan has standards and guidelines to protect all the Forest resources.

The Sierra fire initiative proposal for improved fire protection is included in this Plan. Construction of facilities (both developed and dispersed) will occur in the Sierra where the demand will be the greatest. Location and capacity of these facilities will be coordinated with State and local governments. This will prevent duplication of facilities and ensure an adequate variety. Forest Service facilities will enhance the dispersed recreation resource. Through the land adjustments in this Plan, conflicts between public and private ownerships and rights-of-way will be minimized.

This Plan provides for aquisition of important winter habitat along the Reno-Carson Front, lands in Hope Valley and Mt. Charleston.

PLANNING ISSUE 11:

WHAT ADDITIONAL AREAS ON THE TOIYABE NATIONAL FOREST SHOULD BE CLASSIFIED AS RESEARCH NATURAL AREAS?

This Plan will maintain Research Natural Area status for Mt. Jefferson, Carpenter Canyon and add Babbit Peak area to the system. The Sweetwater R.N.A. would be maintained until disestablished because of the significant alteration of the vegetative cover by mining activity over the last 10-15 years. Any new proposal for Research Natural Areas will be handled through the Environmental Analysis process.

FOREST MANAGEMENT DIRECTION

Forest management direction consists of (1) goals, objectives and management requirements to provide broad overall direction for the type and amount of goods and services to be provided by the Toiyabe National Forest, and (2) the conditions which must be maintained while achieving these goals and objectives.

Forest Management Goals and Desired Future Condition of the Forest

Forest management goals are concise statements describing a desired condition to be achieved sometime in the future. They are expressed in broad general terms and are timeless in that they have no specific date which they are meant to be completed. With the implementation of this Forest Plan, the condition of the Toiyabe National Forest will begin to change, culminating in a different forest by the year 2030.

The mission of the Toiyabe National Forest is to serve as the public's steward of the land and its resources. The Toiyabe will manage these resources for the benefit of all the American people both locally and nationally. In all its activities, the Forest will strive to protect the lands productivity and value for future generations. The Toiyabe workforce will be dedicated to safety, economic efficiency, the public and the land.

Implementation of the Forest Plan will enhance environmental quality, promote economic growth and provide a higher level of market and non-market outputs than is currently being practiced. This emphasis represents more intensive management of the Forest's resource potential than presently occurs and is generally needed if projected demands are to be met for the next 50 years. A major emphasis of this more intensive management is better management of the range and mining resource, and develped recreation construction. Rather than providing one resource to the exclusion of others, this Plan establishes standards for all resources and then emphasizes particular resources within those constraints. The resulting mix of outputs provides multiple use management while protecting and enhancing all resources.

Another significant feature of this plan is its application of social resource management principles. Each part of the direction seeks to maintain or enhance local community stability and responds to one or more of the Issue topics. By addressing existing public issues and management concerns, consideration of the social resource is incorporated in planning for the physical and biological issues. The response of this Plan to the eleven issue topics is detailed in Chapter III.

Implementation of these goals and direction will be coordinated with the policies, programs, and objectives of other federal agencies and state and local governments.

The following section describes the Forest Goals and the desired future condition of the Toiyabe National Forest by resource areas. A goal or goals for each of the resources is stated in broad general terms looking from the present into the future while the disered future condition is stated as how the Forest appears in the year 2030.

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RECREATION

Goal

(1) Increase the quality and quantity of developed and dispersed recreation opportunities with particular emphasis in the Sierra Nevada and at Las Vegas. Recreation Management in these areas will be in concert with and coordinated with appropriate city, county, state, and other Federal agencies.

Desired Future Condition

The Forest will offer a variety of recreational experiences for developed and dispersed recreation. The construction of twelve new campgrounds and reconstruction of the existing sites supplies an additional 5,150 PAOTs. Existing and new developed sites operated to standard. The developed recreation supply and opportunities meet the expected demand. Construction/reconstruction of 40.9 miles of trails and the construction of sixteen additional trailheads will increase the dispersed recreation opportunities. Increased protection to both the resource and the recreational user will be provided through improved law enforcement. Facility maintenance will be increased and all developed recreation improvements will be maintained to a safe and healthy standard. Standards and guidelines will direct that ORV use be provided in areas where such use is not incompatible with other resource programs. An annual travel plan will be developed for each Ranger District.

Most of the Forest will be open to ORV's. In areas of obvious conflict with other uses and in areas where natural resource damage may result from ORV's use, the areas will be closed to such use. The Forest resources will not be degraded from indiscriminate ORV use. The following areas would be closed to ORV use:

(1) Roads and trails which are closed by sign, gate or barricade including earthen barricades extending the width of the road.
(2) In areas where it is necessary to remove obstacles such as rocks, logs or soil, or where there would be damage to vegetation in order to allow vehicles to proceed.
(3) Developed recreation sites (except for ingress and egress to parking facilities);
(4) Key wildlife such as, winter range, fawning and lambing areas.
(5) Rights-of-way for electrical transmission lines, pipelines or telephone lines;
(6) Riparian areas unless specifically designated by a Forest Officer;
(7) Timber regeneration areas, where trees are less than ten feet high;
(8) All trails managed only for horse and hiker use;
(9) Wildernesses.
(10) Areas managed for primative or semi-primitive non-motorized uses.
(11) Areas with sensitive soil or high erodible areas.

Management of roads will be planned to minimize impacts to roadbeds and to minimize surface erosion. A number of local roads are not adequately designed for year-round use. Except for short periods, these roads will be closed to public motorized use in order to

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minimize watershed impact. Rehabilitated temporary or old logging roads will normally be closed to motorized vehicular use. These rehabilitated roads will be signed "Closed to Vehicles."

VISUAL QUALITY OBJECTIVES

The following visual quality objectives (V.Q.O.'s) will exist at the end of the 50 year period.

FOREST	Net Acres	1/ "P"	2/ "R"	3/ "PR"	4/ "M"	5/ "MM"
TOIYABE	3,171.7 M	324.9 M	460.3 M	1,137.8 M	1,027.3 M	221.4M

1/ "P" means "preservation" -- ecological changes only

2/ "R" means "retention" -- management practices are not evident to the the casual observer

3/ "PR" means "partial retention" -- management practices are visually subordinate in the landscape

4/ "M" means "modification" -- management practices may dominate the landscape

5/ "MM" means "maximum modifications" -- management practices may dominate the landscape

Visual Quality Maps are on file in the Toiyabe National Forest Supervisor's office in Sparks, Nevada.

FIRE AND FUEL MANAGEMENT

Goal

(1) Provide a fire management program that effectively responds to land and resource management objectives by the successful operation of a fully coordinated fire protection work force which includes the Forest Service, state of Nevada, state of California, Bureau of Land Management, and local fire departments. Prescribed burning that meets management objectives (which include the reduction of fuels and habitat type conversion) in a safe and efficient manner.

Desired Condition

This Plan will be funded at a level of protection that achieves the least cost plus net value changes on all management areas (expect those where management direction requires a more intense level of protection). In addition, the Cooperative Serria Fire Inititive will be implemented. Funding of both Level II and the

Serria Inititive results in an average annual burn of 500 acres by wildfire and improved protection of private land investments both within and adjacent to the Forest. Prescribed burning is used in wildlife and range management practices to improve vegetative condition.

RANGE MANAGMENT

Goal

(1) To bring the rangelands to satisfactory condition or better. All grazing allotments and wild and free roaming horse and burro territories are to be under management.

Desired Condition

95% of all rangelands are in satisfactory conditions. All grazing allotments and wild and free roaming horse and burro territories are under an approved Management Plan. Livestock and wildhorse/burro use will be approximately at existing levels. Noxious farm weeds are controlled.

PUBLIC INFORMATION AND COORDINATION

Goals

(1) Provide information to the public on the Toiyabe National Forest mission and program.

(2) Involve the public, state, local, and other Federal Agencies in the Toiyabe's Decision Making Process by fully implementing the Forest Service NEPA process and providing adequate "scoping" of issues per FSM 1950 and FSH 1909.15.

Desired Condition

The public understands the mission of the Toiyabe National Forest specifically and the National Forest Service as a whole. Decisions made on the Toiyabe National Forest are better due to the involvement of the public through the scoping and NEPA process.

WILDERNESS

Goal

(1) All wilderness areas are designated, and managed to protect wilderness values and provide quality wilderness experiences to the public.

Desired Condition

The addition of 211.1 M acres to the wilderness system will maintain, enhance and perpetuate wilderness values for future generations. Site damage and overuse on some portions of the existing Hoover wilderness will be reduced with user management. The Hoover and Carson-Iceberg Wilderness addition will provide additional wilderness acreages in the Sierras. Arc Dome and Mt. Jefferson in central Nevada and the Mount Charleston in Southern Nevada provide wilderness values and experiences in a part of the state of Nevada that does not presently offer those experiences.

TIMBER

Goal

(1) Managed ecological system to optimize Toiyabe National Forest goals and key resource values -- provide protection from wildfire, improved wildlife habitat, quality water, providing for threatened and endangered plant and animal species, controlling insects and disease, and maintain vegetative diversity. Public benefits exceed costs.

Desired Condition

Vegetative manipulation of timber stands has resulted in a reduction of insect and disease problems, provide access to many areas of the Forest for various resource management activities and reduce wildfire hazards. A balanced habitat has resulted in a overall net gain for many wildlife species using the Forest. See appendix E for specific timber age distributions through the planning horizon.

SOIL AND WATER AND RIPARIAN AREAS

Goals

(1) Yields of high quality water, approximating 949,500 acre feet, to meet state water quality standards. Acquire water rights and instream flows necessary for management and use of the National Forest.

(2) Improve long term water quality and manage riparian areas to satisfactory condition. Assure all riparian area- dependent resources have been maintained or enhanced. Water resource improvement projects and other projects will be designed to improve and maintain the quality of water and soil resources.

Desired Condition

Greater emphasis on environmental quality has had positive effect on the soil and water resources. Specific riparian area standards and guidelines and the greater emphasis on range management significantly benefits the riparian area dependent resources. Additionally, direct soil and water resource improvement projects has arrested the decline and, in some instance, restore the productivity of key watersheds. Instream flows protect riparian area dependent resource against incompatible water resource development. Use of the forest-wide resource inventory and greater emphasis on water resource inventory produces greater project success, less impact on soil and water resource, and avoidance of losses from management activities in hazardous areas such as floodplains. Monitoring provides the ability to respond quicker to management induced impact on the soil and water resources and the knowledge to properly implement projects. Water yields have not increased over the forest.

WILDLIFE AND FISH

Goals

(1) Threatened, endangered and sensitive species are to be recognized and protected through habitat management and coordination with state wildlife agencies. Habitat is to be in good-to-excellent condition. Lahontan cutthroat trout species to be delisted and Paiute trout species firmly established.

(2) Fish and game populations to be enhanced and managed at levels commensurate with habitat conditions with an emphasis on improving overall quality of wildlife habitat.

Desired Condition

The habitat conditions for Paiute and Lahontan cutthroat trout (Threatened species-Federal list) are in good to excellent condition, with the Lahonton and Paiute delisted. Habitat conditions for the bald eagle and habitat for the peregrine falcon is maintained. Peregrine falcan is present on the Sierra districts.

Habitat for MIS, Sensitive species, fish and big game species is emphasised. Riparian habitats are improved by emphasizing their protection and restoration. The Forest Snag Management and Old Growth standards and guidelines has maintained forested habitats for non-game and ecologically important species. Sensitive plant species are protected.

The Toiyabe will continue to work with other agencies, particularly Nevada Department of Wildlife and California Department of Fish and Game, to determine what these opportunities and potentials are and work toward attainment.

HUMAN RESOURCES

Goals

(1) Maintain human resources program which provides participants with employment, conservation,,environmental education and awareness opportunities while helping the Forest accomplish its objectives.

(2) Provide equal opportunity to all persons regards of race, creed, sex, marital status, age, handicap, religion, or national origin.

Desired Condition

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Many of the Forest objectives are accomplished by the use of the human resources program. Along with the completion of projects that will benefit society as a whole, participants in the program understand the Forest Service and the many programs that it stands for. The Toiyabe National Forest is a better organization to work in because of the opportunities afforded to all persons.

CULTURAL RESOURCES

Goal

(1) Develop a comprehensive cultural resource overview to guide management decisions and direction in completion of the Forest-wide cultural resource inventory. Significant sites will be identified, protected and on the National Register. Public interest is high, and this is facilitated through interpretation for educational purposes.

Desired Condition

The comprehensive Cultural Resource Overview guides management decisions and direction and provides a necessary link to the Nevada State Historic Preservation Plan. In the overview, areas were delineated for moderate and high archaeological sensitivity and work was targeted for a completion of a forest-wide cultural resource inventory. The inventory of National Register sites provides a useful planning tool for the effective management of the cultural resource in relation to other resource needs. All nominations of properties for the National Register have been made. Public interpretation, enhancement, and protection of National Register quality properties is on going through the use of the National Register property management program. The cultural resource plan is an integral part of the Forest overview.

LANDS AND SPECIAL USES

Goal

(1) Provide for use and occupancy of the National Forest by private individuals or Federal, State, and local government when such use is consistent with Forest management area objectives, is in the public interest, and cannot reasonably be served by development on private land.

(2) Adjust land ownership to optimize public benefits and administrative effectiveness of National Forest System.

(3) Provide sufficient access for public use of the National Forest, and resource management of the National Forest.

Desired Condition

The Forest has acquired 35,000 acres through exchange. Major priorities for land adjustment were areas suitable for key wildlife habitat, and for recreation purposes. Land consolidation minimizes or eliminates ownership patterns which require rights-of-way across private lands for public access and resource management. Consolidation also eliminates or minimizes occupancy, fire, and timber trespass by lessening exposed perimeters of scattered tracts. All land adjustments were in accordance with legislative mandates and Forest Service policy, covered by environmental analysis, and where applicable, coordinated with other state and federal agencies and private owners.

All property lines are located and posted to standard with the addition of 14,000 corners.

Issuance of special use permits will be limited to those applications which serve the public need and which cannot reasonably be met on other lands. Priority is given to special uses which maximize public benefits including energy related uses. Any necessary mitigating measures are incorporated into permits. Electronic special uses are limited to designated electronic sites and screened carefully to ensure avoiding interference with Forest Service frequencies.

When proposals to develop private inholdings will significantly impact National Forest lands, these concerns and recommended mitigation measures will be discussed with the appropriate county or local official.

TRANSPORTATION SYSTEM AND FACILITIES

Goal

Provide a safe and efficient transportation net to provide for resource protection, management, and public use of National Forest Lands. Facilities will be developed or improved to facilitate resource management and to insure the health and safety of employees.

Desired Condition

Buildings and Administrative Sites - The Administrative Sites on the Toiyabe National Forest consist of single building sites to integrated district complexes with multiple buildings. Three sites were abandoned and structures removed; eight other sites were evaluated for disposal, relocation or reconstruction in 1995. Construction / reconstruction is accomplished as funds become available. Maintenance on remaining sites is contingent on funds available; health, safety, and energy items receiving the highest priority.

Transportation - The transportation system provides user safety, convenience and efficiency to accomplish land and resource management objectives. Other resource activities are coordinated with road construction for mineral development. The basic arterial/collector system, 797 miles of roads under Forest Service jurisdiction, has been reconstructed. Annual reconstruction program starting in 1988 through 1995 will include eight miles of public works. All other construction and reconstruction will be in support of site resource activities. Reconstruction of arterial and collector roads produces a facility at a maintainable standard, which can be maintained to at least Level 3 where possible as funds are available. Traffic may be restricted on roads not constructed to an all-weather standard.

Substandard local roads are rebuilt to standard or abandoned as determined in the road management program. Annual local road construction and reconstruction averages five miles for timber purchaser.Presently, approximately 60 miles of local roads will be constructed by mining companies to accommodate their access needs. These facilities will be removed from the system if they are not needed to accomplish future Forest Service land and resource management objectives. Campground and Administrative Site roads will be maintained to at least Level 3. Maintenance levels for other local roads will be determined in the road management program.

LAW ENFORCEMENT

Goal

(1) Maintain law enforcement program which assures safe use of the Forest by the public and which protects National Forest resources.

Desired Future Condition

The law enforcement program is coordinated with other Federal, state, and local law enforcement agencies that emphasize prevention activities.

MINERALS

Goal

(1) Encourage minerals development so to minimize effect on renewable surface resources.

Desired Condition

Development of the energy and non-energy resource are encouraged. Increased responsiveness to compliance with operating plans will minimize impacts from surface and cultural resource values. Of the estimated 12,069 operating plans issued over the 50 year planning period, 80% of such plans have had compliance checks. Reclamation of approximately 30,466 acres of the estimated 32,070 acres of total disturbance has been accomplished.

All operations with potential to cause significant disturbance will be covered by an operating plan with provisions to minimize or mitigate effects on surface and cultural resource values. Reclamation bonds will be commensurate with surface disturbance and will contain provisions to repair surface disturbance commensurate with resource values. Cases of abuse of mining laws

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will be resolved promptly. Informal mineral evaluations will be conducted, prior to approval of operating plans for areas identified as primitive, semi-primitive, and non-motorized, through the NEPA process.

RESEARCH NATURAL AREAS

Goal

(1) Preserve and protect the research values of the Mt. Jefferson, Carpenter Canyon and Babbitt Peak Research Natural Areas.

Desired Future Condition

The Research Natural Areas are managed and protected to maintain establishment objectives.

ECONOMIC AND ENVIRONMENTAL EFFICIENCY

Goals

(1) Manage the Toiyabe National Forest to produce a mixture of goods and services in consideration of the interrelationship among the physical, biological, social, and economic environment of the forest.

(2) Manage the Forest in a manner that is sensitive to economic efficiency.

Desired Future Condition

Forest Service management programs are conducted in the least cost method that meets the plan objectives.

INTEGRATED PEST MANAGEMENT

Goal

(1) Utilize integrated pest management strategy to minimize the potential for epidemic outbreaks of pest and/or diseases.

Desired Condition

There will be existing endemic populations of bark beetles and other Forest pests, but the plan provides a reduction in acres affected by dwarf mistletoe. Noxious farm weeds will be controlled and significant outbreaks of range pest controlled.

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Forest-Wide Standards and Guidelines

Management requirements necessary for achieving goals and objectives are referred to as standards and guidelines. These state the bound or constraints within which management practices will be performed. Within this document, the terms "standards " and "guidelines" are interchangeable with no difference in meaning. The Forest-wide standards and guidelines described in the following section were developed :

(1) to resolve public issues and management concerns;

(2) to direct management practices to accomplish Forest-wide goals and objectives.

All references to Forest Service Handbooks (Timber and Facilities) have been incorporated in the process records as of May 1985.

RECREATION

-- Manage the Forest to provide a wide variety of opportunities within the Recreation Opportunity Spectrum (see glossary for definitions and Chapter III for acres).

-- A vegetative management prescription shall be prepared for each recreation site. Objectives of the prescription are to:

1. Create and/or maintain a regenerating natural environment.
2. Create an environment that is, in visual aspects, pleasing and which resembles a natural setting.
3. Provide herbs, grasses, and other ground-cover plants as components of the site.
4. Create a more durable area, less prone to damage by human or pest impact.
5. Create diversity of tree size, age, and species, ultimately reducing the need to remove hazard trees by emergency treatment, short of a catastrophe.
6. Develop healthy soil conditions conducive to plant growth.
7. Create or perpetuate plant screening between occupancy units as appropriate to the planned experience level.
8. Provide shade, wind protection, and sunshine diversity as appropriate to the climate.

-- Provide for Off Road Vehicle use in areas where soil and water resources can be protected and where such use is not incompatible with other resource programs. Develop an annual "Travel Plan" for each Ranger District that describes the areas open for ORV use and those areas closed or restricted. ORV management will be in accordance with 36 CFR 295.

- Protect the scenic quality of the forest by achieving the designated Visual Quality Objectives, unless modified by a site specific environmental assessment.

- Minimize log skidding in recreation sites. Predesignate skidding in sensitive recreation areas.

- Harden sites where occupancy is greater than 40% and where resource damage is occurring or expected to occur.

- Require "pack-out" of refuse for all dispersed areas.

- Strive to clean and police developed Fee Sites to standards described in "Recreation Sites - San Dimas publication".

- Set developed sites fees to recover operation and maintenance costs.

- Campgrounds will be evaluated for cost effectiveness. Campgrounds determined inefficient may be closed.

- No new recreation residence permits will be issued. However, existing residences in hazardous and emergency areas or areas needed for public use may be relocated.

FIRE AND FUELS MANAGEMENT

- The National Fire Analysis (FSH 5109.19) will be used to determine the most cost efficient level of attack forces, detection and prevention programs.

- Appropriate suppression responses to wildfire are documented in the appropriate preplanned dispatching guides (Carson-Bridgeport, Central Nevada and Las Vegas) except for those areas for which Fire Management Action guidelines are to be prepared. Fire Management Area guidelines will determine response in sensitive areas such as wilderness. (See Management Area Standards and Guidelines for those areas for which such plans are appropriate).

- Response to wildfire which escapes initial action will be determined in an Escaped Fire Situation Analysis which considers Land Management objectives, costs, damages, safety and reinforcement capabilities.

- Treatment of activity fuels will comply with Toiyabe National Forest fuel treatment standards (Supplement(s) to FSM 5150).

- Natural fuel treatment projects will meet multi-resource objectives.

- Vegetation manipulation may be required to meet protection objectives.

- Use planned, prescribed fire to improve or enhance resource outputs where appropriate.

- Use planned or unplanned ignitions to provide for Natural Ecosystems in wilderness and other areas where appropriate.

-- Implement the Action Plan for reducing the risk of wildfire damage on the Sierra Front (see Fire Action Plan in Chapter V - Implementation).

-- Utilize Interagency cooperation to reduce the costs of all emergencies.

RANGE MANAGEMENT

-- Consolidate administration responsibilities on common National Forest System Land and Public Lands.

-- Develop Allotment Management Plans (AMP) for each allotment.

-- Require supplemental feed for recreational horse use, as necessary.

-- Assure water developments and other range improvements meet wildlife needs.

-- Locate, where feasible, all range improvements away from travel corridors, expecially trails and popular fisheries and other water courses. When not feasible to separate the uses, incorporate design and landscape management principles to mitigate the visual impacts per Visual Landscape Handbook.

-- Provide gates or fence passage on trails as needed to facilitate access.

-- Incorporate Landscape Management principles to vegetative type conversions per National Forest Landscape Management Handbook series, such as prescribed burning, and other vegetative treatment proposals. Give special emphasis toward retaining the natural visual integrity along travel corridors, especially roads and trails, and in areas of concentrated dispersed use.

-- Define ecological sites, develop condition SCORE cards, and define management strategies for rangeland management.

-- Utilize Toiyabe National Forest Range Suitability Standards.

-- Strive to achieve or maintain a minimum of 60% ground cover on upland rangelands with the exception of low sagebrush types, Wyoming big sagebrush types, crested wheatgrass seedings, pinyon-juniper types, and south facing sagebrush types on granitic slopes of the Sierra Batholith.

-- Minimize recreation-range conflicts in grazing plans.

-- Conduct monitoring and evaluation in accordance with FSH 2209.21 Range Environmental Analysis Handbook and the Nevada Rangeland Monitoring Handbook.

-- Achieve or maintain rangeland in satisfactory condition which is defined as (1) having a resource value rating of 50 or above, or (2) being in a moderate or high ecological status, and (3) having a stable or upward soil and vegetation trend.

-- Complete maintenance on structural improvements in accordance with grazing permits.

-- Implement noncontinuous use management systems on all livestock grazing allotments with rest rotation system being used when significant range in unsatisfactory condition if it is feasible to implement.

-- An annual operating plan will be prepared for each grazing allotment. The annual operating plan is the action plan that implements management decisions during the current year. Annual operating plans should be mutually developed by the District Ranger and permittee.

-- The annual operating plan will consist of written and graphic sections.

-- 1. The written section will include, where applicable:

-- a. Clear and definite instructions concerning management of livestock while on the allotment. This should include the schedule for each unit to be grazed, expected amount of time each unit will grazed, how the livestock will be moved from unit to unit, and standards for getting all the livestock moved and "cleaned out" of a grazing.

-- b. Range improvement maintenance responsibility for the current year, when the maintenance will be accomplished and the maintenance standards to be attained.

-- c. A list of range improvement projects to be started or completed during the current year.

-- d. Any necessary instructions concerning trailing and/or trucking livestock to and from the allotment.

-- e. Special instructions on camp sanitation and fire prevention responsibilities of permittee.

-- f. Multiple use coordination requirements with which the permittee is expected to comply, including animal control practices and compliance with endangered and threatened species requirements.

-- 2. The graphic section should include:

-- a. A map showing allotment and management unit boundaries, range improvements, closed areas and special managment situations.

-- b. Acceptable forms for recording actual use, losses, improvement mainentance, and other management data.

-- Involve livestock permittees, other Federal and State Agencies, and interested people in the development of implementation of allotment and territory management plans. Utilize the Coordinated Resource Management and Planning Process (CRMP) as appropriate.

-- Priority will be given to range improvements on allotments with high percentage of lands in unsatisfactory condition.

-- Forage Utilizations Standards described below are to be used as maximum standards for the development of proper use criteria. Design of management systems will determine the specific utilization standards to be applied. These standards should be applied, based on utilization of key species by key area. Soil disturbance may also be used to determine proper use and is often the best measure of proper use on sheep ranges and on granite slopes.

TABLE IV-1 FORAGE UTILIZATION STANDARDS

Management System	Vegetation Type	Percent Utilization By Key Species			
		GRASS OR FORB		SHRUB	
		Conditions Class		Conditions Class	
		Unsatisfactory	Satisfactory	Unsatisfactory	Satisfactory
Continuous	Aspen Sage brush, Mountain brush and grassland	40%	45%	30%	40%
	Riparian	80%	80%	20%	30%
	Alpine	30%	40%	20%	30%
Rest or Deferred	Sage brush, Mountain brush and grassland, Aspen	45%	55%	40%	50%
	Riparian	80%	80%	25%	35%
	Alpine	40%	45%	25%	35%

-- Proper use criteria will be established, in writing, for each unit of each grazing allotment. Proper use criteria are a mandatory part of each allotment management plan. Long-term trend studies are also mandatory to determine if the proper use criteria are correct and determine what is occuring in regard to range condition. Proper use criteria will be developed from interdisciplinary input. It is necessary that they be based on the factor that becomes critical first - the limiting factor. In some range units or pastures, it may be necessary to establish more than one set of proper use criteria. This is especially true where riparian areas are involved.

-- Establishing proper use criteria requires interdisciplinary involvement - such as wildlife and fisheries biologists, soils, and hydrologic personnel, landscape architects, etc. The proper use criteria defines the permissable grazing level in the range unit or pasture.

-- In setting up limiting factors and proper use criteria, these standards must be observed, as follows.

-- 1. Soil and vegetation are the basic resources. The condition of these two resources must be maintained or improved, If they are in satisfactory condition, they must be maintained in this condition. If they are in less than satistactory condition, allowance must be made for improvement in condition. Any use causing a downtrend in condition of these two resources should be modified or eliminated, whether caused by livestock, wildlife, or any other use.

-- 2. Other Considerations. After the needs of the soil and vegetative resources are taken care of, the other resources, such as livestock grazing, wildlife, and esthetics, can be considered. This is the point where the ID team is involved.

-- Tradeoffs are recognized and displayed. Livestock will receive equal consideration with wildlife, fisheries esthetics, timber production, or whatever else may be involved. Grazing use must meet the requirements on the Multiple Use and Sustained Yield Act.

Trampling of the soils by grazing animals may result in either soil displacement or soil compaction. This effect of grazing may become limiting factor before the maximum allowed utilization of the key species is reached. In this situation, the amount of soil dispalcement or compaction will determine the limit of allowable grazing use rather than utilization of key species.

Proper use guides based on soil displacement follow. On steeper slopes and on loose sandy soils, evidence of trampling should not exceed 10 percent (light) as determined within sample plots. Usually on areas under 5 percent slope and/or heavier textured soils up to moderate (11 to 30 percent), trampling can be tolerated. Certain stream bank zones may be an exception.

Soil compaction is detrimental on heavy soils, particularly if they are wet and meadows are most susceptible to compaction. Proper use is defined as moderate compaction or less.

PUBLIC INFORMATION AND COORDINATION

-- Keep interested groups, organizations, and individuals informed on Toiyabe N.F. programs. Involve the public in the Forest's decision making process.

-- In all dealings with the public, employees will follow the principles of the Chief's Host Program.

-- Coordinate closely with local and state governmental agencies, special interest groups, affected public in all management activities of the Toiyabe National Forest.

WILDERNESS

-- Each designated wilderness will have an operations guide specific to its situation. Plans for the year-to-year or day-to-day operation of the wilderness as the guidance for wilderness management personnel and District Ranger will be prepared only as needed and in the manner and format best suited to meet such need. They will follow direction stated in the Forest Plan.

-- Education will be our most important tool in managing visitors. Districts with wilderness responsibilities will emphasize no-trace camping.

-- Wilderness administrators will set the example by using non-motorized equipment and transport except in emergency situations.

-- The use of motorized equipment and mechanized transport shall be limited or controlled so that national Forest wilderness is managed for the purposes of the act, while sustaining optimum characteristic wilderness values. To the extent feasible, the management goal shall be to exclude the sight, sound and other tangible evidence of motorized equipment and mechanical transport.

-- Travel shall be by foot or horse, or other nonmechanical means consistent with the primitive character of wilderness.

-- Managers will strive to rehabilitate areas damaged by human activities.

-- Wilderness trail systems will lay light on the land. Their primary function will not be convenience, but resource protection.

-- Signing in wilderness will be minimal and confined to trailheads, trail junctions, regulatory messages and safety warnings. The Forest will phase out other signs.

-- Evaluate all permanent improvements for compatibility with policy and regulations.

-- Historical and archeological sites are compatible with wilderness values.

-- The Forest may use planned or unplanned fire ignitions to provide for natural ecosystems.

-- Fire Suppression practices will minimize their impacts on the land. Firefighters will return fire lines to as close to a natural state as possible.

-- Aircraft may be used in emergencies such as fire and search and rescue when life or property are threatened.

-- Mining operations plans will address wilderness values and ways to protect them. Rehabilitation efforts will strive to return the land to as close to its natural condition as possible.

-- Validity investigations will be scheduled when a claimant/operator files an operating plan or a Notice of Intention, if these impacts will be significant on the surface resource.

-- Managers will determine the recreation carrying capacity for each wilderness and keep each wilderness in high ecological condition.

-- The Forest will coordinate Toiyabe's wilderness management with that of adjacent Forests.

-- A wilderness permit system will be implemented for the California Wildernesses.

TIMBER

-- Use even-aged silvicultural systems in all forest types except for modifications needed to realize management objectives in special areas.

The following species will be managed within the following silvicultural framework :

Jeffery pine, lodgepole pine and mixed conifer

Clearcut, seed-tree cut, two-step shelterwood, three-step shelterwood, selection, or sanitation cut (salvage), as determined by a certified Silviculturalist. Pre-commercial and commercial thinning will also be used as called for in the written silvicultural prescriptions.

-- Standards for planting, seeding and reforestation are in Forest Service Handbook 2409.26b. Cone collection is a part of the reforestation process and the standards are in Forest Service Handbook 2409.26-F.

-- Develop area transportation analysis for zones of influence for each timber sale at least five years prior to sale date.

-- Construct a minimum of temporary timber access roads. Physically close and stabilize immediately upon completion of the required use including programmed firewood cutting.

-- Delineate clearcuts and patch cuts to repeat natural lines and forms of the surrounding landscape. Cable logging needs may require some amending of the shape.

-- Tractor logging generally will be permitted on slopes 35% or less and 30% on granitic soils. Site Specific Environmental Analysis will be developed for each timber sale, and may allow tractor logging on steeper slopes if on-the-ground conditions are suitable.

-- Allow no skidding through live streams. Skid over log bridge or use other types of structures to protect stream crossing.

-- Apply a modified prescription on potential recreation sites that are inventoried for construction within 50 years.

-- Where possible, use timber management activities to reduce fuel/fire hazards to acceptable levels.

-- Where possible, utilize timber sale residues for fuelwood.

-- Incorporate wildlife travel corridor requirements in developing road design and construction standards.

-- Consider necessary thermal cover for big game in designing thinning projects on winter range.

-- Timber utilization standards will comply with Regional Standards.

-- Land classified as suitable and unsuitable for timber production will be determined by the following definitions and standards:

-- Tentatively Suitable Forest Land Classification Process. The following sequential steps shall be followed in determining lands tentatively suitable for timber production.

1. Forest Land. All lands meeting the definition of forest land shall be initially considered as suitable for timber production.

2. Forest Land Withdrawn From Timber Production. Lands designated by the Congress, the Secretary, or the Chief for purposes that preclude timber production are to be classified as unsuitable. The act, order, or decision must include a legal description of the designated land, or a reference to a map, pending boundary survey and description, and include an effective date. Congressionally designated wilderness study areas and roadless areas endorsed by the Administration for wilderness classification are also withdrawn from timber production. Examples are units of the National Wilderness Preservation System, Primitive Areas, and Research Natural Areas. No other RARE II lands shall be considered withdrawn unless an individual State wilderness act so designates. Lands not withdrawnshall be further considered for timber production suitability.

3. Forest Land Incapable of Producing Industrial Wood. Lands that are not capable of producing crops of industrial wood are by definition to be classified as unsuitable for timber production Species of trees which are not currently utilized or not expected to be utilized within the next 10 years, constitute the primary criterion for assigning lands to this category. This included the pinyon-juniper forest lands. This does not preclude, however, the formulation of an alternative to display management opportunities, if a demand develops.

4. Physically Suitable Forest Land. Forest lands physically suitable for timber production are lands where technology is available to ensure timber production, without irreversible resource damage to soils, productivity, or watershed conditions, and lands where there is reasonable assurance that they can be adequately restocked within 5 years. The latest developments in technology that are documented in current research and experience are to be considered in these determinations. Economic efficiency is not a factor in the determination of physical suitability.

5. The test of irreversible resource damage was performed by an interdisciplinary team. It determined if activities involved in

timber production can be carried out on forest land without irreversible resource damage to soil productivity, fish or wildlife habitats, or watershed conditions. As a minimum, activities considered included access, harvesting, slash disposal, and regeneration. If these items can be accomplished with available technology and without impairment to the site or drainage, the land was considered tentatively suitable. Available technology is that technology that is in use or which current research and experience indicates is feasible to use. Current research and experience should indicate that the technology is feasible to use successfully for the site, species, and other factors involved. Current use does not have to be within the Forest or Region.

6. The second test shall be to determine whether there is reasonable assurance that the remaining forest lands can be adequately restocked within 5 years of final harvest, based on existing technology and knowledge. Current research and experience shall be the basis for determining whether the practices planned can be expected to be successful at the time final harvest is planned. If existing knowledge is inadequate to determine which practices will be successful on certain lands, but research is underway which should resolve this question prior to when final harvest is planned; then, the applicable lands may be included as tentatively suitable, but shall be maintained as a separate, noninterchangeable component of the allowable sale quantity.

7. Management Prescriptions. Management prescriptions, which include timber production functions, shall be developed on a per acre basis for all forest land that is identified as tentatively suitable.

8. Suitable Forest Lands. Tentatively suitable lands, screened out as not appropriate in each alternative, shall be classed as unsuitable for timber production. Conversely, those forest lands that were not screened out during the various steps in the foregoing process were classed as suitable for timber production.

9. As provided in 36 CFR 219.14(d), the Forest must monitor changes in conditions during the plan period which may have an effect on the suitability classification under the plan. As examples, if there is new market interest for unsuitable lands, or new technology is developed that ensures that unsuitable lands can be adequately restocked within 5 years after final harvest, an analysis of the classification should be performed and the plan amended. If the amendment is significant, the entire suitability process must be redone (36 CFR 219.10 (f)).

10. Lands unsuitable for timber production shall be reviewed at least every 10 years and may be redesignated as suited for timber production, according to the criteria in 36 CFR 219.14(a) and .14 (c).

11. Lands Not Appropriate for Timber Production. The objectives of the benchmarks and alternatives shall determine which tentatively suitable lands are not appropriate for timber production.

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Consequently, the amount of land not appropriate for timber production varies among the benchmarks and alternatives because of the conditions discussed in FSM 2412.41-.43.

12. Timber Production Precluded. This condition applies to the benchmarks and alternatives where the management direction precluded timber production activities from specified areas, to provide for non-timber-related benefits or uses, such as assigning certain land inventoried to wilderness management.

-- Pinyon Juniper will be managed using appropriate model silvicultural (ecological site) prescriptions.

-- Where possible use timber management activities to improve wildlife habitat and forage for domestic livestock.

-- All EA's for timber sales will have site specific economic analysis.

SOIL AND WATER

-- Meet the responsibilities specified in the Management Agency Agreement between the State Water Resource Control Board, State of California and the Forest Service, USDA, dated April 1,1981 for the purpose of carrying out portions of the State Water Quality Management Plan related to activities on National Forest System lands.

-- Meet the responsibilities specified in the memorandum of understanding between the U.S. Forest Service, USDA, and the Division of Environmental Protection, Nevada Department of Conservation and National Resources for the purpose of carrying out portions of the State Water Quality Management Plans related to activities on National Forest System lands.

-- Implement Best Management Practices for protection and improvement of water quality and soil productivity as described in "Water Quality Management for National Forest System Lands in California and State of Nevada non-designated Area Water Quality Management Plan "Handbook of Best Management Practices."

-- Meet or exceed state water quality standards as found in California's "North Lahontan Basin Water Quality Control Plan" and the "The State of Nevada Water Pollution Control Regulations."

-- Protect soil productivity and water quality by adhering to erosion prevention and control measures presented in the publications: Technical Guide - Erosion Prevention and Control on Timber Sale Areas - Intermountain Region - Soil and Water Management, Nov. 1979.

-- Soil disturbing activities will not exceed established soil loss tolerance limits forest-wide. Exceptions may occur on specific sites where maintenance of soil productivity is not feasible (i.e., construction projects).

-- Conduct Order II Soil Survey or field verified Order III Soil Suvey on significant site disturbing or vegetative manipulation projects and on sites scheduled for range allotment monitoring.

-- Congress has directed the Forest Service to administer National Forest System land for multiple use purposes. These purposes have been stated in the Organic Administration Act, Multiple-Use Sustained-Yield Act, Wilderness Act, Wild and Scenic Rivers Act, and other legislation and Executive Orders. The water needed to successfully accomplish the program mandated by these acts and Executive Orders will be protected. Protests will be filed for applications of water rights where the exercise of such rights would adversely affect National Forest resources or water rights of the United States.

-- Water needed for National Forest System management but not available under State law and not meeting the Supreme Court criteria for a reserved right under the Organic Administration Act, will be secured by citing the applicable Federal law and conditioning occupancy permits.

-- Whenever water rights are authorized by Federal or State law, these will be quantified, decumented, and recorded. Applicable fees will be paid by the benefitting function.

-- A Federal reserved water right will be asserted for water needed for programs of timber management and watershed management including fire protection. A reserved right will also be used to acquire water needed in the form of instream flow sufficient to maintain stability of the stream channel for the purposes of securing favorable conditions of water flow and protecting against the loss of productive timber lands adjacent to the stream channels.

-- Quantification of instream flows to secure favorable conditions of water flow will be accomplished over a ten year period by priority. Immdediate quantification will be done in support of Forest Service protest of water right applications by others and for adjudications. Second priority will be the progressive quantification of instream flow needs by area as shown in the following table, by 1995:

Priority	Area
1	Sierra Division
2	Central Nevada Division, Management Areas 7 and 8
3	Central Nevada Division, Management Areas 9 and 10
4	Las Vegas Division

RIPARIAN AREAS

-- All standards and guidelines listed for "soil, water and range management" apply to Riparian areas.

-- Recognize the importance and distinctive values of riparian areas when implementing management activities. Give preferential consideration to riparian area dependent resources over other resources in cases of unsolvable conflicts.

-- Delineate and evaluate riparian areas prior to implementing any project activity.

-- Design range and wildlife habitat improvement projects, and/or silvicultural prescriptions in riparian areas to benefit riparian area dependent resources.

-- Manage riparian areas to achieve or maintain moderate or high ecological status.

-- Give priority to range, wildlife habitat, or watershed improvement projects that will rehabilitate riparian areas that cannot be restored in a timely manner by other management techniques.

-- On streams where Lahontan Cutthroat and Paiute Cutthroat Trout are present or scheduled for introduction, the riparian areas should be maintained or improved to good or excellent resource value rating.

-- Maintain or improve the Biotic Condition Index (BCI) on 95% of the streams to a minimum standard of 85 BCI.

-- Manage beaver to maintain or enhance riparian conditions. Maintain beaver within habitat capability.

-- Strive to achieve and maintain at least 90% of the natural bank stability for streams supporting Lahonton or Paiute cutthroat trout and 80% on all other streams.

-- Locate salt and sheep bedgrounds outside riparian areas when feasible.

-- Strive to place new livestock water developments outside riparian areas.

-- Move inventoried water developments out of riparian areas when and where feasible.

-- Require a mineral evaluation prior to approving operating plans in key riparian areas.

-- "Avoid direct and indirect support of floodplain development and new construction in the wetlands wherever there is a practical alternative."

-- "Capitalize on opportunities to resolve and preserve the natural and beneficial values served by floodplains, and to preserve, enhance and manage the natural and beneficial values of wetlands."

-- Fish passage will be provided at all crossings of known fish habitat by meeting the requirements for fish passage and adhering to the guidelines specified in Fish Migration and Fish Passage, A Practical Guide to Solving Fish Passage Problems, USDA Forest Service, Region 5, Sept. 1977.

-- Adhere to the performance criteria specified for stream channel protection as follows:

    -- The land manager, utilizing interdisciplinary team inputs will assure that any necessary stream alternation is carried out in accordance with prescribed specifications to at least meet the following performance criteria.

    -- Avoid channel changes wherever this is feasible.

    -- In any needed channel work, every reasonable effort shall be made to preserve, or minimize adverse effects on the natural aquatic environment.

-- Where channel changes are deemed necessary, natural channel velocities shall not be increased in the affected stream reach. This will be assured by installing drop structures, by constructing acceptable meanders, or by other approved methods. Where drop structures are installed, they shall be designed to permit fish passage, if this is an established occurrence.

-- Where water velocities are increased by the placing of a bridge or culvert or other activity, precluding established fish movement upstream, suitable facilities shall be installed to allow for unrestricted fish passage.

-- Construction and other activities affecting stream channels shall be limited to those periods when such activities will have the least detrimental effect on the aquatic environment, unless emergency situations deem otherwise.

-- Adequate mitigation measures shall be taken if construction or other activities will adversely affect water temperatures.

-- Construction and other activities affecting channels above spawning areas shall be deferred if they will adversely affect eggs or alevins in the gravel.

-- When channel changes or alternations are the best alternative, mitigating measures shall be provided to foster replacement of the aquatic habitat to as near natural condition as is possible.

-- Streamside vegetation shall be maintained if feasible, or if destroyed, shall be replaced to provide for the necessary needs of the aquatic environment.

-- When channel changes are unavoidable, new channels shall be completed, including scour and erosion protection, before turning water into them.

-- Construction equipment service areas shall be located and treated to prevent gas, oil, or other contaminants from washing or leaching into streams.

-- Streamside vegetation shall be protected or replaced when its removal can result in:

1. Increased stream temperature detrimental to aquatic habitat.

2. Increased turbidity, bedload, and suspended solids which would be detrimental to fish-spawning beds or other aquatic habitat.

-- In road construction, maintenance, and other earth-moving activities, the toe of overcast material shall be placed above the high-water line. If the best alternative is to encroach on the stream, construction methods and/or structural barriers shall be used to prevent fill material from being transported downstream.

-- All temporary roads associated with timber harvesting or other

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activities shall be constructed to grades not exceeding safe limits for surface water control and contain sufficient water bars or other structures to prevent eroded materials from reaching streams.

-- On sidehills and near channel crossings, road drainages shall discharge where sediment can settle out before runoff reaches a stream channel, unless this is clearly unfeasible.

-- Water collection systems installed to protect roads or facilities shall be designed so that waters turned onto slopes or into natural channels will not exceed the safe capacity of the slopes or channels.

-- Transport of sediment from disturbed areas shall be minimized by ponding, vegetative barrier strips, or other means.

-- Log landings shall not be located adjacent to stream channels or on areas where surface runoff will discharge directly into the channel.

-- Roadway sections parallel and contiguous to stream channels shall be so designed, constructed, and maintained to minimize concentrated surface runoff from the roadbed and slopes. Special design features, such as slope drains, insloping, crowning, berms, or other facilities, shall be provided as appropriate and to the extent feasible.

-- Wash-water from gravel-crushing operations shall be treated so that the level of turbidity of the discharge water does not exceed the turbidity level, at normal flow, of the stream into which it is released.

-- Construction shall be avoided during wet season or other undesirable runoff periods, to minimize sedimentation directly into streams. If construction is essential during such periods, sedimentation damage will be minimized by installing debris basins or using other methods to trap sediment.

-- Wheeled, track-laying, or other heavy equipment shall not be operated in stream courses except, when approved by the land manager, at crossings designated by him; or, if essential to construction activities, as specifically authorized by the land manager.

-- Slash piles shall be located away from streams or drainage channels so that residues will not reach perennial streams.

-- Flushing of desilting basins, ponds, and reservoirs into streams is prohibited.

-- All industrial, residential, and recreation developments shall, when physically feasible, use a recharge pond rather than the stream as part of the storm drain system.

-- Borrowing materials from stream channels shall be practiced only where this is not detrimental to water quality, fisheries, or

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channel hydraulics.

- Revegetation of lands impacted by channel changes shall be done with native trees, shrubs, or grasses. If there is no source of native vegetation, as nearly native plants as available shall be used.

- Lands impacted by stream channel operations and lands contiguous to streams that have been altered by construction activities shall be reshaped to as near natural conditions as possible, prior to revegetating.

- Logging and construction operations shall be conducted to prevent debris from entering stream channels, wherever feasible. In the event some debris is deposited and is detrimental, it shall be removed in a manner that least disturbs the channel and adjacent land. Cable yarding or handwork are usually acceptable. Bulldozers may be permitted only with the approval of the land manager.

- Trees shall not be felled into streams, lakes, or bogs.

- Bridges, culverts, water level recording, and stream channel protection facilities, including riprap, shall be designed and constructed to harmonize with the natural environment, to the extent feasible.

- The total scenic value shall be considered when an evaluation dictates the need for a road paralleling a stream. For example, a stream channel change, properly designed and constructed, might result in a road with less adverse visual and physical impact than would construction of the road across a steep slope.

- Altered streambanks shall, wherever feasible, have slopes which are not barriers to recreation use.

- Unless absolutely essential for the purpose of correcting an existing channel problem or to protect life and/or property, or to enhance the aquatic environment, stream channel changes and encroachments shall be prohibited on streams within or contiguous to established or proposed recreation areas.

- When it is necessary to use flood plains or basins for recreation, streams will not be channelized to protect recreation structures and facilities from flooding.

- Unless needed to improve channel hydraulics or to improve the aquatic environment, borrow material shall not be removed from channels that are within or contiguous to established recreation areas.

- Where channelization is done, the impacted area shall be shaped and revegetated in a manner campatible with recreation use, whenever feasible.

- If access along a streambank is needed under a bridge span to be built over a large stream, the bridge shall be sufficiently long to provide room for such access.

-- Where streams offer boating or floating opportunities, channel structures or alterations shall, if feasible, allow for safe passage and not detract from scenic qualities.

-- Culverts, bridges, and other facilities shall be designed to pass, or to protect against, floods which may be resonably expected to occur during the life of the facility. Selection of the design flood should consider the relationships between risk and hazard of failure and the costs (monetary and nonmonetary) of providing protection.

-- Culverts or bridges shall be required on temporary roads associated with timber harvesting or other activities, at all points where it is necessary to cross stream courses. Such facilities shall be of sufficient size and design to provide capacity for the flow of water anitcipated during the period of use of the road. When the temporary road is no longer needed for the purpose for which it was designed, all bridges and culverts shall be removed. When such facilities are removed, associated fills shall also be removed so that they will not be affected by the stream. Removed fill material shall be shaped to blend with the natural terrain, and all disturbed soil revegetated.

-- No soil materials shall be used to cover the decks of temporary bridges.

-- When flow in a stream course is temporarily diverted to accommodate construction or other activities, such flow shall be restored to the natural course as soon as practical and, in any event, prior to a major runoff season.

-- All culverts shall be bedded and backfilled in accordance with approved engineering practices.

-- Upon completion of a project or activity, all temporary roads shallbe "erosion-proofed" by cross ditches, ripping, seeding, or other suitable means. As needed, silting ponds or other facilities shall be provided to prevent silt-laden water from entering streams.

-- Riprap or other erosion protection materials should be of sufficient size and placed in such a manner as to withstand peak flows comparable to a 25-year flood, except where associated with major bridges which are designed for passage of a 100-year flood.

-- Riprap or other protection materials shall extend below the bed of the stream sufficient to protect against scour and to a height sufficient to protect against the predicted or recorded 25- or 50-year flood occurrence, as appropriate.

-- Riprap material shall be of a quality that will not deteriorate during the length of time that it is determined to be needed.

-- Riprap and other erosion protection material shall be placed in such a manner as to prevent any downstream erosion.

WILDLIFE AND FISH

-- Snag management standards, old growth, and sage grouse management standards are as follows:

Snag Management Minimum Requirements.

Available Productive (Capable) Forest Land

(1) Jeffrey pine/mixed conifer/red fir.

1 snag/acre, 16" DBH, 48' high, dead 5 years or more.
1 snag/acre, 16" DBH, 16' high, dead 5 years or more.

Obvious live cull trees can be substituted for dead trees if it appears they will die within 10 years.

Future snags: (green trees):

2 /acre, 16" DBH, 30' high.

(2) Lodgepole pine.

1 snag/acre, 12" DBH, 30' high, dead 5 years or more.
1 snag/acre, 12" DBH, 12' high, dead 5 years or more.

Future snags (green trees):

1 /acre, 12" DBH, 30' high.

(3) Riparian Areas. The riparian area is defined; "Geographically delineated areas, with distinctive resource values and charateristics, that are comprised of the aquatic and riparian ecosystems, floodplains, and wetlands. They include all areas within a horizontal distance of 100 feet from the edge of perennial streams or other water bodies."

2 snags/acre, 16" DBH, 30' high, dead 5 years or more.
2 snags/acre, 16" DBH, 16' high, dead 5 years or more.

Future snags (green trees):

2 /acre, 16" DBH, 30' high.

(4) Forest Openings. This includes all non-forested areas larger than 5 acres in size.

1 snags/acre, 16" DBH, 48' high, within 100 feet of the opening edge, dead 5 years or more.

1 snag/acre, 16" DBH, 48' high, within 300 feet of the

opening edge, dead 5 years or more.

2 snags/acre, 16" DBH, 16' high, within 300 feet of the opening edge, dead 5 years or more.

Obvious live cull trees meeting the minimum standards can be substitued for snages if it appears they will die within 10 years.

Future snags (green trees):

1 /acre, 16" DBH, 30' high, within 100 feet of the ectone.

1 snag/acre, 16" DHB, 16' high, within 100 feet of the ectone.

(5) Aspen. Retain 60% of all naturally occurring snags. Retain live trees showing wildlife use such as cavities. Aspen snags should be (>) 10" DBH and (>) 20' high.

(6) Pinyon/Juniper. Retain 60% of all naturally occurring snags. Retain live trees showing wildlife use such as cavities.

Old Growth Guidelines Toiyabe National Forest

10% of available Productive (capable) Forest land to be managed as old growth habitat (by timber type-Jeffrey Pine, Mixed Conifer, and Lodgepole Pine).

1. 3 quality snags* per acre.
2. 3-4 dead and down logs (class 1 or 2) per acre minimum size 21 inch DBH.
3. Overall crown closure greater than 50%.
4. 14 or more old growth stems per acre over 21 inch DBH in JP and MC and 17 in DBH in LPP.
5. Presence of heart rot and other signs of decadence.
6. Minimum size of old growth stand should be at least 100 acres. In the Sierra old growth stands should be connected by corridors for small mammals such as pine marten, flying squirrels, etc.

Sagegrouse Management Guidelines - The following standards apply to dey sagegrouse habitats.

1. Use dropping counts, sage grouse sightings, and historical records to reveal the location and importance of sage grouse habitat.

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2. Maintain 20% to 55% canopy cover on sage grouse range.

3. Use irregularly designed patterns when manipulating brush in sage grouse habitat.

4. Maintain meadows in sage grouse range. Where meadows have lost their natural characteristics because of lowered water table, trampling, overgrazing, road building, or for other reasons, take measures to restore the meadows.

5. Maintain desireable sagebrush habitat within 2 miles of leks.

6. Retain irregular leave strips of untreaded sagebrush approximately 100 yards wide adjacent to stream bottoms and meadows.

7. Include the use of a combination of forbs and grasses desireable to sage grouse when rehabilitating sage grouse habitat.

8. Maintain desireable sagebrush habitat on known sage grouse wintering areas.

9. National Forest personnel will arrange a joint on-the-ground review of the proposed project with the proper local state wildlife biologist where details of wildlife coordination can be explained and discussed.

These guidelines are designed to minimize damage to sage grouse populations. Each individual situation should be carefully invested and professional analysis and judgement utilized in arriving at a final decision for projects. This will be accomplished through the environmental analysis process.

-- Manage ecosystems containing sensitive plant and T&E animal populations, to maintain or increase these populations and achieve recovery of these species.

-- Coordinate management practices which may effect threatened and endangered species with the U. S. Fish and Wildlife Service, California and Nevada State Wildlife agencies.

-- Improvement of key habitats within wilderness and recommended wildernesses must be in accordance with the Wilderness Law and Policy.

-- Improve habitat for threatened or endangered species and sensitive species that have been adversely affected by man's activity in wilderness areas.

-- Apply grazing management systems aimed at improving key winter range for big game animals and fisheries habitat. As a maximum, browse species utilization by livestock or wild horses on key winter range and riparian areas will not exceed 30% of those areas prior to big game use.

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Manage key wildlife habitats to assure maintenance of viable populations and reasonable distribution of these populations.

-- Limit predator control to specific problem animals and/or areas.

-- Encourage introductions, reintroductions and augmentation for socially important wildlife and fish. These programs will be coordinated with State Wildlife agencies and adjacent Federal agencies.

-- Manage aspen stands at a moderate or high ecological status with emphasis on improving the age class structure through the following standards:

  -- moderate use of grazing with rest to establish regeneration
  -- create small openings in vigorous stands
  -- prescribe burn in some selected stands

-- Utilize the timber program as a tool in accomplishing vegetative management projects. Use commercial timber sales and pinyon-juniper management to improve diversity and wildlife habitat.

Wild Horse and Burros

-- Wild horses and burros will be managed in accordance with the Wild Free-Roaming Horse and Burro Act of 1971.

-- Carry out Interagency agreements between the Inyo National Forest and the Bureau of Land Management.

-- Involve wild free-roaming horse and burro interest groups as well as other Federal and State agencies in the management of wild free-roaming horses and burros.

-- Evaluate vacant wildhorse territories as to suitability for reintroduction for horses.

-- Manage wild horse and burro to population levels compatable with the resource capabilities and needs.

HUMAN RESOURCES

-- The Forest will support the Intermountain Regions Affirmative Action Plan.

-- Inform the general public, including minorities and the underprivileged of benefits and opportunities available from Forest programs.

-- Coordinate resource activities when common boundaries exist with the Yomba, Washoe and Paiute Indian Lands.

-- Emphasize programs that involve local youth, particularly local minority youth, senior employment programs and volunteers.

CULTURAL RESOURCES

-- Standards and guidelines have been developed which are consistent with procedures accepted by the SHPO, guidelines followed by the Department of Interior, and professionally accepted standards supported by the archaeological community at large. Direction in this Plan provides for the full implementation of these standards and guidelines in managing cultural resources on the forest and in complying with applicable federal laws and regulations.

-- Perform cultural resource surveys of National Forest lands proposed for exchange.

-- Participate with State(s) Historical Preservation Office (s) (S.H.P.O) in the development of state-wide and Forest-wide archeological plans.

-- In compliance with applicable historic preservation legislation (National Historic Preservation Act. Executive Order 11593), a professionally supervised cultural resource inventory program will be conducted on a programmatic Forest-wide level.

-- Identify the most significant historical and archeological sites in cooperation with the states' Historical Preservation Officer(s) and give priority to those significant sites.

-- Conduct thematic evaluation of known significant resources. As appropriate nominate the best examples to the National Register and manage fully as a cultural resource for preservation in-place. Develop a plan which addresses the management needs for protection and interpretation of properties on or eligible to be on the Register as well as management options available for sites not considered eligible to the Register.

-- Complete the Cultural Resource Overview and use as a guide for project survey.

LANDS

-- Identify specific land ownership adjustment needs and priorities, and when possible within local jurisdictions meet their land management objectives such as ownership patterns, tax base, public ownership of hazard areas, etc. All lands have been placed in one of the following groups:

Group I - These are lands the Congress has directly or indirectly instructed the Forest Service to retain ownership and acquire non-federal lands for a designated purpose. (Creation of a wilderness is an example of the indirect approach). In most cases, the objective is to retain existing ownership and acquire remaining lands. Acquire private lands within the newly established California Wildernesses through land exchanges or purchase if land exchange negotiations cannot be consummated.

Group II - The remaining lands needed for a special type of management and allocated for that purpose. Examples of this are: Key wildlife habitats, recreation lands and special interest areas.

Group III - The remaining lands are further subdivided into two subgroups.

a. Consolidated National Forest Lands - These are general solid blocks of National Forest lands. These 'blocks" will not normally be available for adjustments.

b. Areas of mixed private and Federal ownership. The objective is to rearrange ownership patterns to benefit both public and private interest and to acquire high priority lands for National Forest use.

-- Each land adjustment proposal will be evaluated with the following criteria to determine suitability and/or priority for adjustment.

1. Meets habitat needs for wildlife species.
2. Meets the needs for developed recreation.
3. Meets the needs for dispersed recreation.
4. Protects or enhances wilderness values.
5. Protects or enchances visual quality objectives.
6. Improves management efficiency and administration by reducing common property boundaries and rights-of-way.
7. Facilitates planning objectives of other Federal, State, local agencies and Indian tribes.
8. Meets the needs for providing quality water.

-- Land line will be located by survey and identified by posting and marking of the true line between controlling property corners depending upon the value of the land and the opportunity for trespass. Priority will be given to areas with high resources values, and with high potential for trespass.

Small Hydro-Projects (Federal Energy Regulatory Commission - FERC)

1. The Forest Indiscipliniary Team will review proposed projects when Notices of Application for licensing are received from F.E.R.C..
2. Management concerns identified by the Indiscipliniary Team will be resolved in the Environmental Assessment before approval of Special Use Permits.
3. Minimum in-stream flow needs required by the Forest Service to maintain favorable water flows as outlined in the Organic Act and to protect minimum viable trout populations will be quantified by the Forest Service.
4. In addition to the above items, Forest Service imput to the Environmental Assessment or Environmental Impact Statement will include cumulative affects, as appropriate, of actions proposed in the plan and the proposed hydro power project.

TRANSPORTATION SYSTEM AND FACILITIES

-- Plan, develop and operate the transportation system to provide user safety, convenience, and efficiency to accomplish land and resource management objectives. The basis for selection and application of elements and standards will be developed from the analysis criteria for each system road. Elements of the criteria are discussed in FSH 7709.11 chapter 24.1.

-- Develop an area transportation analysis for the zone of influence for every development project.

-- Review and update the transportation facilities operations plan annually to manage use in support of resource activities. This plan will address all aspects of systems operations including cooperative maintenence with other agencies, area closures, traffic restrictions, and removal of facilities from the system. Restoration of the land to resource production shall take place prior to removal of a facility from the system.

-- Maintain buildings, structures and utility systems to protect the capital investments. See Appendix A for a list of Administrative sites. Maintenance will be paid by benefitting function unless F.A.& O. facility.

-- Maintain structures to at least the minimum standards for health and safety of the user by:

1. Preserving as practical, the original condition of buidlings and related facilities owned by the Forest Service.

2. Keeping facilities safe, sanitary, neat, and attractive inside and outside and in good working order.

3. Reducing or elinmating the risk of interruption of service and support provided by the building.

4. Preventing major unplanned repairs, and reconditioning or replacement costs.

-- Acquire rights-of-way to provide for public and administrative access.

-- Roads constructed for mining will be closed and rehabilitated as close to the original contour as possible upon abandonment, unless they are needed for management of the Toiyabe National Forest as determined by Area Transportation Analysis.

-- Manage, monitor and maintain all water and wastewater systems to preserve water quality, protect public health and eliminate potential sources of pollution. Monitoring of potable water systems will be guided by the National Interim Primary Drinking Water Regulations and will include periodic testing for levels of chemical, physical, radiological and microbiological contaminants.

-- Design and manage National Forest Trails according to FSH 7709.12.

-- Sierra Front Trails will be managed to planned objectives as in the trail management plans.

-- National Trails will be managed to level 4 maintenance standards. Trails within wilderness will be managed to achieve wilderness management objective.

LAW ENFORCEMENT

-- Law enforcement activities will emphasize prevention and education.

-- Cooperative agreements with local law enforcement agencies will be continued and encouraged. The Forest Service will cooperate with local governments in search and rescue efforts. Destruction of Forest property, threats to users and Forest officers will receive priortiy.

MINERALS

Minerals Management

-- Require an operating plan on all mining operations which might cause significant surface resource disturbance.

-- Process Notice of Intents and Operating Plans in accordance with 36 CFR 228, and NEPA.

-- Operating Plans will have provisions which will result in minimizing impacts on surface and cultural values, and return disturbed areas to a productive use.

-- Reclamation bonds will be commensurate with surface area disturbances.

-- Reclamation plans will include provisions to achieve the repair of surface disturbance commensurate with resource values and management area direction.

-- Initiate action to resolve cases of abuse of mining laws such as occupancy for purposes other than mining and related activities.

-- Regular compliance inspections will ensure reasonable conformity to an approved plan.

-- Informal mineral evaluations will be conducted before Operating Plans are approved in a primitive, semi-primitive, non-motorized areas and environmentally sensitive areas as identified through the NEPA process.

-- Make recommendations to the Secretary of Agriculture on existing withdrawals concerning extention, removal, or modification.

-- Apply stipulations to new oil and gas or geothermal leases as described below. Specific stipulations are described in Appendix B.

-- Existing borrow sites for common variety materials will be utilized before new sites are developed.

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- Requests for new common variety material sites will be developed through the NEPA process. New sites will be developed on the National Forest only when alternative sites off the Forest are not reasonably available.
- Use state permitting processes for handling mineral dredging operations.

TABLE IV-2 Special Stipulations for Mineral Leases

U.S. Forest Service Standard Stipulations	Recreation Special area	Steep Slopes Over 40%	Riparian	Key Wildlife Habitat	T & E Habitat	Administrative Site	Research Natural Area	Cultural Resources	Municipal Watershed	Visual Quality Retention or Partial retention Areas
1.No occupancy/disturbance for [rec./special area/etc.] *	X									
2.No facilities viewed from [road/lake/etc.]*										X
3. No surface occupancy	X	X	X			X	X		X	
4.No occupancy/disturbance within [__] feet of [rd./tr./creek/etc]			X	X						
5.No drilling/facilities within 200 feet of [live water/archaelogical/etc.] *			X	X				X		
6.No occupancy/disturbance,steep slopes		X								
7.Exploration/development allowed [specific time/over snow/etc.] *				X						
8.Prohibit exploration development for watershed damage									X	
9.Limits use of roads/trails	X					X				
10. Esthetic painting of facilities	X									X
11.No occupancy/activity for [steep slope/ecosystem/etc.] *	X	X	X	X						

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TABLE IV-2 Special Stipulations for Mineral Leases (cont.)

U.S. Forest Service Standard Stipulations	Recreation Special area	Steep Slopes Over 40%	Riparian	Key Wildlife Habitat	T & E Habitat	Administrative Site	Research Natural Area	Cultural Resources	Municipal Watershed	Visual Quality Retention or Partial retention Areas
12.No [state activity] allowed because of [wildlife/improvement/etc.] *				X	X					
13.To protect [state activity] allow [type of activity] during [state time period] *				X						X
14.Controlled/limited surface use							X			
15.Activity coordination	X			X	X		X	X	X	X
16.Protect T&E species					X					

* To be completed when lease is issued.

Stipulations apply to leases to protect the indicated resource considerations unless it is determined through the NEPA process that a specific stipulation does not apply. Also if the NEPA process identifies a stipulation that is not included, then it may be included in the lease.

SPECIAL USES

-- New commercial permittees will be selected through a competitive process, if there is competitive interest.

-- Manage all utility, roads, and transmission corridors in accordance with plans and permits issued for their construction and use. When applications for utility rignts-of-way are received, the first priority will be to utilize existing corridors.

-- An Environmental Analysis will be required prior to adding new facilities to existing corridors. The integrity of the visual quality for the corridor will be maintained to the highest standard to minimize adverse resource and environmental impacts. Any new utility corridor not identified in this plan will be handled through the NEPA process.

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-- National Forest System land will not be made available for uses that can be accomodated on private lands.

-- Manage electronics site in accordance to site plans/permits.

-- Soil Conservation Service Snow Courses will be established and managed in accordance with Memorandum of Agreement between U.S. Forest Service, Region 4, Odgen Utah and U.S. Soil Conservation Service in States of Idaho, Nevada, Utah and Wyoming on snow surveys to protect the integrity of the snow courses.

-- Applicants for electronic facilities will be directed toward use of the sites in the following order:

(1) Utilize residual capacity of existing sites.

(2) Utilize other sites following evaluation through an environmental analysis and preparation of a site plan.

-- The Forest Service will manage recreation-residence use in accord with a basic recreation policy which reflects the growing public needs for all National Forest resources and the following:

1. Since past experience indicates that any undeveloped sites which might be attractive as sites for recreation-residence tracts are also attractive and will be needed for development or for administration of public recreation, new recreation-residence tracts will not be normally approved.

2. Recreation residences in established tracts will continue to be recognized as a valid use of National Forest land, unless and until a determination has been made that the lot involved is needed for a higher priority public purpose or should be vacated for some other specific reason.

3. Where commitments to the selection of a lieu lot have not already been made, they will not be made; unless it is deemed appropriate to so obligate unoccupied lots in established tracts. In some situations, it may be possible, within the exterior boundary of established tracts or immediately adjacent thereto, to lay out additional lots that can be considered lieu lots. Such action will not be considered as establishing a new tract. However, in these instances, analysis of future needs of the public should be projected through at least two term periods (40 years).

4. Recreation-residence use will not be used for commercial purposes.

5. Recreation-residence use will be administered to maintain and restore the forest environment.

6. All residential permits in a tract and in logical groups of tracts will be for the same term and will include the same termination date. Where this is not now the case, adjustments to achieve it will be made.

A study will be made of all recreation-residence tract or individual lots. Such studies will consider existing pertinent factors, and will appraise future possibilities. Such a study will determine one of the following:

1. There is no evidence that the public interest will ever be best served by the land's remaining in public ownership. Evidence in these cases must be conclusive. If there is any doubt, or if there is any evidence that in the long run the public interest might be served by the land's remaining in public ownership, the decision will be for retention. If disposal is indicated, the possibility of an advatageous exchange will be thoroughly explored.

2. The public interest will best be served by the land's remaining in public ownership. In these cases, a further review will be made to determine which of the following applies:

   A. The lot is needed for a higher public purpose which can be forecast and for which a specific date of need can be determined. In these cases, the permittee will be so notified, and the same time factors and other elements of their limited tenure will be thoroughly documented and explained. All such decisions regarding future use of recreation-residence lots shall be documented.

   B. The lot may continue to be used for recreation-residence purposes, unless and until at some future date a higher priority public purpose for the land becomes evident.

-- Special use pastures or National Forest lands fenced in with private land should be managed as per the following direction:

  -- Authorize grazing with a grazing permit as described in 36 CFR 231.1 and 232.2 under regulations.

  -- Special use pasture permits should be terminated wherever the pasture can be managed as an integral part of an existing allotment, or as an independent and practical allotment. The grazing use should be authorized by a grazing permit and the management specified in the allotment management plan. Special use pasture permits may be continued where such use is the most logical way to manage the lands.

  -- A special use pasture will be considered as a land use, not a grazing use. Fees for pasture permits, as in other agricultural uses, will be based on rentals of comparable private land used for similar purposes.

  -- Forest Service policy authorizes grazing with a grazing permit as described under regulations. Where a pasture permit has been issued to an individual who also holds a grazing permit, the pasture use will be converted to the grazing permit.

-- Utility lines will generally be buried, if necessary to meet visual quality objectives. Exceptions to underground utility lines will be allowed where technological, economic, or resource protection requirements indicate that such lines should be overhead.

AIR QUALITY

-- In cooperation with air quality regulatory agencies, prevent deterioration of the air quality from emission concentrations that would produce measurable adverse effects on the values of vegetation, wildlife, soil, water, and the visual quality within the Class I Area (i.e., Hoover Wilderness).

-- Management use of fire will include compliance with approved State Air Quality Implementation Plan.

-- All contracts and Special Use Permits that might impact Air Quality will include clauses that require permittee to meet state(s) Air Quality Standard.

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RESOURCE SUMMARY

This section describes a summary of all the resources found on the Toiyabe National Forest. Refer to Appendix D for detailed write up for each resource.

IDENTIFICATION OF MANAGEMENT PRESCRIPTIONS

The National Forest Management Act (NFMA) regulations define management prescriptions as "management practices selected and scheduled for applications on a specific area to attain multiple use and other goals and objectives." Generally, a management prescription is a set of treatments or practices to develop and/or protect some combination of resources on a particular land type.

The I.D. Team analyzed the management situation of the Toiyabe National Forest. As a part of that analysis, they determined the minimum activities necessary to conserve soil and water resources, prevent significant or permanent impairment of the productivity of the land, to maintain viable populations of existing native vertebrate, and to prevent the destruction or adverse modification of critical habitat for threatened and endangered species. These activities became minimum management requirements and were imbedded in the management practices, and/or standards and guidelines for the prescriptions.

The I.D. Team compiled a list of management practices (activities presently occurring), needed to resolve issues or concerns, and needed to take advantage of resource development opportunities identified in the Analysis of the Management Situation. The I.D. Team, based on existing research, historical records and professional expertise examined practices to determine if they would provide resource protection, minimize serious or long-term hazards, protect streams, etc., and maintain diversity. Practices selected were practices previously agreed upon by a joint committee of State and Forest Service personnel. Research used in formulating practices for prescriptions is noted in the process records. A summary listing is included in references.

To ensure an adequate range of management prescriptions for benchmark and alternative formulation, the Interdisciplinary Team (with the assistance of resource specialists) using the Best Management Practices developed a set of management prescriptions with a variety of management emphases, intensities, management practices and standards and guidelines for each land type. These range from minimum level management prescriptions with little active management to management prescriptions containing high intensity management for timber, wildlife, recreation and wilderness. The current management benchmark/alternative was defined through the use of management prescriptions respresenting all activities presently being practiced. Issues were analyzed and prescriptions were developed for the positive solution to the issues. Special area prescriptions were developed for areas such as Wilderness Areas.

The primary vegetation management practice chosen for Toiyabe National Forest timber stands is shelterwood cutting. This practice was chosen because:

1. It provides for cost-efficient reforestation by natural regeneration supplemented with planting.

2. It provides for the best conditions for establishment and survival of regeneration on our harsh sites.

3. It provides the best situation for maintaining site productivity and preventing soil loss (erosion).

4. It provides some control of regeneration of desired tree species.

5. It provides the best situation for maintaining aesthetic values for the forest.

The specific volume amounts removed in the series of cuttings depends on the involved species regeneration requirements.

In areas where retention of aesthetic values is desired, individual tree selection cutting is used. This practice was chosen because:

1. It will meet the retention visual quality objective of the area.

2. It provides for yields of timber from these areas.

3. It provides for establishment and survival of regeneration.

4. It also maintains site productivity and prevents soil loss.

The choice and use of any other vegetation management practice, however, is not ruled out by the preceding choices. The written silvicultural prescription for the stand will choose the practice used within the multiple-use goals established for the area by this plan. The majority of the prescriptions will be shelterwood cutting and in retention zones it will be individual tree selection cutting.

All of the prescriptions are responsive to issues and concerns in that most issue facets are resolved in one or more management prescriptions.

Table IV-3 shows the management prescriptions applied.

TABLE IV-3 ACRES BY MANAGEMENT AREA PRESCRIPTION
In Thousand Acres

Prescription	Management 1	Management 2	Management 3	Management 4	Management 5	Management 6	Management 7	Management 8	Management 9	Management 10	Management 11	Management 12
1. Wilderness-Designated and Recommended			4.9	49.2	135.1			94.4				32.0
3. Intensive Wildlife and Dispersed Recreation		90.2	32.4	118.8		405.2	180.8	441.5	408.1	496.9		12.5
4. Stewardship Wildlife, Range, and Recreation							87.0		27.3	54.0	13.5	
5. Market Opportunities						14.0		5.1				
6. Wild Horses, Wildlife, and Dispersed Recreation						186.0				177.6		
10. Moderate Timber and Range	25.0											
11. Market Opportunities and Developed Recreation			77.3	84.9								

Management Area Prescription

1. Wilderness - Designated and Recommended - This prescription (Rx) is designed to manage the established and recommended Wilderness Area to meet objectives and intent of the Wilderness Act (GOAL 6 in FORPLAN).

3. Intensive Wildlife and Dispersed Recreation - This Rx emphasizes the amenity values of Wildlife and Dispersed Recreation (GOAL 4 in FORPLAN).

4. Stewardship Wildlife, Range and Recreation - This Rx is a maintenance level program level close to current level Management (GOAL 3 in FORPLAN).

5. Market Opportunities - Rx emphasizes Timber/Range programs (GOAL 5 in FORPLAN).

6. Wildhorses, Wildlife and Dispersed Recreation - Rx is similiar to Rx 3 except emphasizes Wildhorse Management in the areas of significant wildhorse populations (GOAL 4 in FORPLAN).

10. Moderate Timber and Range - Rx emphasizes Timber/Range at moderate level of Management intensity (GOAL 5 in FORPLAN).

11. Market Opportunities and Developed Recreation - This Rx emphasizes Developed Recreation, Range and Timber with primary emphasis on Recreation (GOAL 5 in FORPLAN).

TABLE IV-4 ANNUAL YIELDS, ACTIVITIES AND COSTS (AVERAGE ANNUAL VALUES)

Program Element and Activity	Unit of Measure	1986 1990	1991 2000	2001 2010	2011 2020	2021 2030
RECREATION						
Developed Recreation Use	Thousand RVDs	1096.0	1125.0	1171.0	1246.0	1315.0
Dispersed Recreation Use	Thousand RVDs	1851.0	2157.0	2488.8	2488.8	2488.8
Wilderness Use	Thousand RVDs	607.0	647.4	687.8	687.8	637.8
WILDERNESS						
New Wilderness acres	Thousand Acres	180.5	180.5	180.5	180.5	180.5
RECREATIONAL OPPORTUNITY SPECTRUM						
Primitive	Thousand Acres	147.4	147.4	147.4	147.4	147.4
Semi-primitive non-motorized		1373.1	1373.1	1373.1	1373.1	1373.1
Semi-primitive motorized		1087.1	1087.1	1087.1	1087.1	1087.1
Roaded natural		536.3	536.3	536.3	536.3	536.3
Rural		21.3	21.3	21.3	21.3	21.3
VISUAL QUALITY						
Preservation	Thousand Acres	324.9	324.9	324.9	324.9	324.9
Retention		460.3	460.3	458.1	455.9	453.7
Partial Retention		1137.8	1137.8	1118.0	1098.0	1078.4
Modification		1027.3	1027.3	1047.1	1066.9	1086.7
Max Modification		221.4	221.4	223.6	225.8	228.0
WILDLIFE AND FISHERIES						
Wildlife Habitat Improvement	Thousand Acres	3.0	3.0	3.0	3.0	3.0
Management Indicator Species						
Goshawk	Breeding Pairs	66.0	66.0	66.0	66.0	66.0
Pine marten	Thousand Animals	1.0	95.0	95.0	95.0	95.0
Paiute cutthroat trout	Fish/Stream/Mile	230.0	380.0	500.0	500.0	500.0
Lahontan cutthroat trout	Fish/Stream/Mile	200.0	380.0	500.0	500.0	500.0
Williamson's sapsucker	Thousand Animals	3.4	3.4	3.4	3.4	3.5
Hairy woodpecker	Thousand Animals	5.0	5.0	5.0	5.0	5.0
Mule dear	Thousand Animals	29.0	32.5	33.6	33.6	33.6
Sage grouse	Thousand Animals	17.3	20.0	23.0	25.0	27.0
Yellow warbler	Thousand Animals	6.0	5.6	5.6	5.6	5.6
Palmer's chipmunk	Thousand Animals	6.6	6.6	6.6	6.6	6.6
Yellow-bellied sapsucker	Thousand Animals	1.5	1.5	1.5	1.5	1.5
Macroinvertebrates (BCI)		75. 0	77.0	78.0	78.0	78.0
Dispersed Wildlife Use						
General Forest Area	Thousand of WFUDs	447.0	526.1	565.9	606.8	628.2
Wilderness	Thousand of WFUDs	77.0	76.9	76.9	76.9	76.9
Improvement	Thousand of WFUDs	15.0	15.6	15.6	15.6	15.6

TABLE IV-4 ANNUAL YIELDS, ACTIVITIES AND COSTS (AVERAGE ANNUAL VALUES)

Program Element and Activity	Unit of Measure	1986 1990	1991 2000	2001 2010	2011 2020	2021 2030
RANGE						
Domestic Livestock (Capacity)	Thousand AUMs	99.0	102.0	102.5	102.5	102.5
Domestic Livestock (Permitted Use)	Thousand AUMs	97.0	97.4	98.1	98.1	98.1
Wildhorses (Permitted Use)	Thousand AUMs	5.4	5.4	5.4	5.4	5.4
TIMBER						
Program Sales Offered	Thousand CF	693.0	693.0	693.0	693.0	693.0
	Millions BF	4.5	4.5	4.5	4.5	4.5
Reforestation	Thousand Acres	.120	.120	.075	.061	.052
Timber Stand Improvement	Thousand Acres	.270	.270	.089	.089	.089
Fuelwood	Thousand CF	587.0	587.0	587.0	587.0	587.0
	Thousand Cords	6.5	6.5	6.5	6.5	6.5
WATER						
Meeting Water Quality STANDARDS	Thousand Ac-ft	932.0	932.0	932.0	932.0	932.0
PROTECTION						
Fuel breaks and Fuel Treatment	Thousand Acres	1.5	1.2	1.2	1.2	1.2
Prescribed burning for Range	Thousand Acres	.5	.5	.5	.5	.5
Prescribed burning for Wildlife	Thousand Acres	1.1	1.1	1.1	1.1	1.1
MINERALS						
Leases	Number of Leases	65.0	65.0	65.0	65.0	65.0
Operating Plans	Number of Plans	256.0	256.0	256.0	256.0	256.0
Acres Reclaimed	Thousand Acres	.9	.9	.9	.9	.9
Acres Disturbed	Thousand Acres	1.3	1.3	1.3	1.3	1.3
HCBD						
Human Resources Program	Person years	108.0	108.0	108.0	108.0	108.0
LANDS						
Land Purchase & Acquisition & Exchange	Acres	700.0	700.0	700.0	700.0	700.0
Property Boundary Lines						
Location	Miles	11.0	8.0	8.0	8.0	8.0
Maintenance	Miles	0.0	2.6	2.6	2.7	2.6

TABLE IV-4 ANNUAL YIELDS, ACTIVITIES AND COSTS (AVERAGE ANNUAL VALUE)

Program Element and Activity	Unit of Measure	1986 1990	1991 2000	2001 2010	2011 2020	2021 2030
SOILS						
Soil and water improvement acres	Acres	33.5	33.5	33.5	33.5	33.5
FACILITIES						
Trail Const./Reconst.	Miles	1.8	1.7	.6	0	0
Arterial/Collector Road Construction	Miles	4.1	.6	.7	.9	.7
Arterial/Collector Road Reconst.	Miles	26.9	13.8	18.8	18.5	18.9
Timber Purch. Road Construction	Miles	1.3	1.2	1.1	1.4	1.0
Timber Purch. Road Reconstruction	Miles	2.6	1.9	2.9	2.5	3.0
BENEFITS M$	THOUSAND DOLLARS					
Recreation						
Developed		3288.0	3374.0	3512.0	3738.0	3945.0
Dispered		5554.0	6471.0	7466.0	7466.0	7466.0
Wilderness		4856.0	5179.0	5503.0	5503.0	5503.0
Range		1240.0	1278.0	1287.0	1287.0	1287.0
Timber		257.0	257.8	255.9	256.3	242.2
Other Timber 1/		89.0	89.0	89.0	89.0	89.0
Wildlife (WFUDs)		10557.0	12068.0	12865.0	13682.0	14112.0
COSTS M$	THOUSAND DOLLARS					
Total Forest Budget		6005.0	6004.8	6098.7	6030.0	6117.6
Protection		967.0	967.0	967.0	967.0	967.0
General Administration		782.0	782.0	782.0	782.0	782.0
Total Roads		562.0	560.5	569.2	572.6	561.7
App. Fund Roads		496.0	492.6	502.5	505.3	494.8
Purchaser Credit Roads		66.0	67.9	66.7	67.3	66.9
Non-Forest Service Costs (exc. roads)		462.0	423.9	423.9	423.9	423.9
Recreation						
Developed Construction		246.3	138.2	124.7	103.3	133.6
Developed Reconstruction		138.5	24.7	13.7	0	0
Dispersed Trail Head		6.1	9.6	16.5	0	0
Dispersed Trails		14.2	13.6	4.9	0	0
Returns To Treasury		1245.0	1402.8	1400.7	1423.5	1442.9

1/ Includes Christmas trees, pinyon nuts, post & poles, and fuelwood
2/ Timber outputs remain constant from the fifth to the twentieth period

MANAGEMENT AREA DIRECTION

This section describes the twelve management areas, the management direction, activities, and specific standards and guidelines that apply to each area. The standards and guidelines which apply to all management areas were discussed previously as Forestwide Standards and Guidelines.

Toiyabe National Forest was divided into management areas to facilitate implementation of the Forest Plan. Each management area is composed of contiguous lands with similar topography, geology, land and resource uses. One management area includes the three formally classified wilderness areas on the Forest. While all will be managed under the principles of multiple-use, different resources will be emphasized in different areas. For example, Dog Valley Management Area will emphasize timber products, while the Carson Front Management Area will emphasize dispersed recreation, wildlife, and watershed values. The write-up for each management area includes the following:

1. A location map,
2. The management area number and acreage,
3. A brief description of the physical characteristics and significant resource situation or uses,
4. The total management area description and prescription for the area, and
5. The proposed (first 10 years) and probable (second 10 years) practices, the Management Information Handbook (MIH) codes, the management direction, activities, and specific standards and guidelines.

Management areas, listed by number, name and acres follow:

Area Number	Name	Acres
1	Dog Valley	25.0 M
2	Carson Front	90.2 M
3	Alpine	114.6 M
4	Walker	203.7 M
5	Wilderness	135.1 M
6	Bridgeport Pinyon/ Juniper	605.4 M
7	Paradise-Shoshone	267.8 M
8	Toiyabe	541.0 M
9	Toquima	535.4 M
10	Monitor	701.2 M
11	Mount Charleston Developed Canyons	13.5 M
12	Mount Charleston Dispersed Area	44.5 M

Wilderness Recommendation

Areas recommended for wilderness are preliminary administrative

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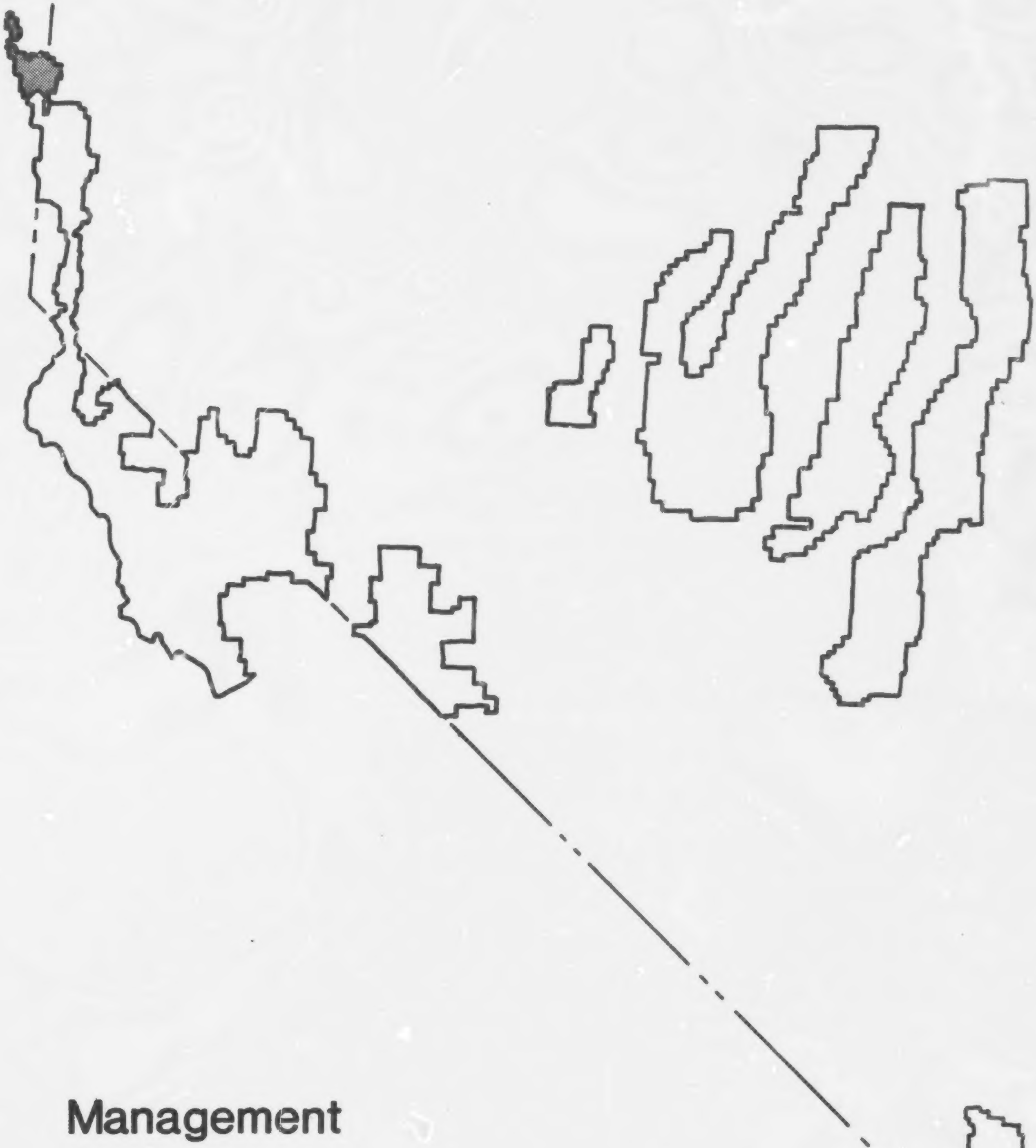
recommendations which will receive further review and possible modification by the Chief of the Forest Service, the Secretary of Agriculture, and the President of the United States. Final decisions on wilderness designation have been reserved by Congress.

The Carson-Iceberg Roadless area is contiguous to a roadless area on the Stanislaus National Forest. The Stanislaus National Forest is the lead Forest in the evaluation for wilderness for the Carson Iceberg Planning area. The management direction for the contiguous roadless area is only a recommendation until a final decision is made by the Stanislaus National Forest. The decision will be implemented when the Stanislaus Environmental Impact Statement is approved.

The California Wilderness Act of 1984 required the Secretary of Agriculture to submit a report to Congress within three years of effective dates of the law as to their suitability for preservation as wilderness for the Carson-Iceberg Planning area and the Hoover Wilderness Addition planning area. In addition, subject to valid existing rights, these two planning areas shall be managed to maintain their presently existing wilderness character and potential for inclusion in the National Wilderness Preservation System for at least four years of the date of enactment. The final recommendation for the two planning areas is shown in Management Areas 3, 4, and Appendix C.



Management
Area #1
Dog Valley

MANAGEMENT AREA 1

Total acreage: 25 M net acres

The Dog Valley Management Area contains all Toiyabe National Forest lands north of Truckee River or Interstate 80. Verdi Ridge, Dog Valley, Long Valley, and areas north to Roberts Canyon are included. The Management Area is approximately 15 miles west of Reno and accessible via I-80 and/or US 395. The area supports extensive stands of second growth Jeffrey pine and logging has taken place continuously since the 1870s. In recent years, public fuelwood harvest has taken on greater importance. There are two small campgrounds in the area and primary public recreation is day use, often related to fuelwood harvest and deer hunting. Dog Creek provides a limited fisheries and is a tributary to the Truckee River which is a major source of the Truckee Meadows Municipal water system. There has been interest in developing a small reservoir to supplement the Truckee Meadows Water Supply. A reservoir for storage of water essential for Truckee Meadows is presently under feasibility study by Sierra Pacific Power Company. The area provides important winter range for the Loyalton-Truckee Interstate deer herd. The gentle topography and stable soils enhance timber and forage management opportunities. The Management Area includes a special area, the proposed Babbitt Peak Research Natural Area (RNA). This RNA includes a pure stand of Washoe pine, California red fir, western white pine, white fir, and Jeffrey pine. Fire protection is taking on a greater emphasis because of the private land development adjacent to the area. Active fuelwood cutting also adds to the risk.

Acreage suitable for timber production: 14,133 acres.

TOTAL MANAGEMENT AREA DIRECTION

Key resources to emphasize in this management area are the protection of soil, water, and wildlife values, and providing for day use and dispersed recreation opportunities.

Demonstrate and interpret intensive National Forest Management activities to increase public awareness of National Forest programs.

Manage recreation primarily for Roaded Natural recreation opportunities. Manage informal campsites and hunter camps as important components to dispersed recreation.

Conduct vegetation manipulation to assist in meeting multi-resource objectives. Utilize the fuelwood program to improve vegetative condition and vigor.

Evaluate vacant range allotments for future management.

Management Prescription

Moderate Timber and Range -- 25.0 M acres

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 1

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
CULTURAL RESOURCES	A01 A03 A04	(A)	Evaluate for nomination and interpretation the Donner Party Trail and related emigrant routes. Develop a management plan to protect and/or interpret those areas deemed significant.
CULTURAL RESOURCES	A02 A03 A04	(A)	Inventory and evaluate known historical sawmills, logging camps, and related features and systems. Nominate, protect or interpret as necessary.
DEVELOPED RECREATION	A01 A06 A07	(D)	Require proponent of future reservoir, if approved and constructed, to install developed recreation facilities to meet projected flat water recreation demand. Consider land exchange as potential mitigation for reservoir construction.
RECREATION	A07	(D)	Close Dog Valley campground and provide developed site opportunities at Lookout Campground by 1987.
RECREATION	A07	(D)	Maintain Lookout Campground and manage as a fee site by 1987.
RECREATION	A08	(D)	Close Dog Valley Meadows to all motorized vehicles except snowmobiles over snow by 1987.
WILDLIFE	C01	(D)	Key deer winter range and the Dog Valley - Long Valley road will be closed to all motorized vehicles when conflicts arise with wildlife.
WILDLIFE	C01 C02	(D)	Give priority to rehabilitation of key deer winter range damaged by fire if these areas do not recover naturally in a reasonable amount of time.
WILDLIFE	C01 C02 C03	(A)	Complete 200 structural habitat improvements and 250 acres of non-structural habitat improvements.
WILDLIFE	C02 C03	(D)	Wildlife habitat improvement projects will emphasize improvement of deer winter range.
RANGE	D01	(A)	Complete 4 initial Range Allotment plans.
RANGE	D05	(A)	Complete 17 new structural range improvements.
RANGE	D07	(A)	Administer and manage 4 grazing allotments.
TIMBER	E00	(D)	Manage timber stands to maintain vigor, control insects and disease to maintain esthetics and reduce fire hazard.
TIMBER	E03	(D)	Vegetative management prescription will consider visual, wildlife and site productivity and

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 1

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
			economics as important factors.
TIMBER	E04	(D)	Provide reforestation as needed to carry out stand silvicultural prescriptions.
TIMBER	E05	(D)	Perform timber stand improvement as needed to carry out stand silvicultural prescriptions.
TIMBER	E06	(D)	High risk old growth and overstocked intermediate Jeffrey pine stands are highest priority for harvest. See Forest-wide standards for specific timber management activities.
TIMBER	E33	(D)	Provide research and cooperative management opportunities with University of Nevada, Reno. Emphasize identifying vegetative responses to manipulation as a research project.
SOIL & WATER	F08	(D)	Maintain existing erosion control structures in Dog Creek.
MINERALS	G01	(D)	Approve no new non-energy mineral leases on acquired land not subject to location.
MINERALS	G01	(D)	Rehabilitate the Crystal Peak Mine and access road.
RESEARCH		(D)	Establish and protect the Babbitt Peak Natural Area, in cooperation with Tahoe National Forest. Withdraw the area from mineral entry.
SPECIAL USES	J01	(D)	Do not issue outfitter-guide permits in Dog Valley.
LANDS	J11	(D)	Coordinate with adjacent National Forests and state and local agencies to enhance the resource management opportunities in this area.
LANDS	J18	(D)	Manage the gas/line right-of-way in Dog Valley to minimize soil erosion and to enhance visual qualities.
LANDS	J18	(D)	Acquire public access to Roberts Canyon - Evans Canyon Area.
FACILITIES	L01	(D)	Coordinate with the Tahoe National Forest and Sierra and Washoe Counties to improve the Dog Valley - Henness Pass Forest Highway.
FACILITIES	L09	(A)	Reconstruct 9.2 miles of collector roads.

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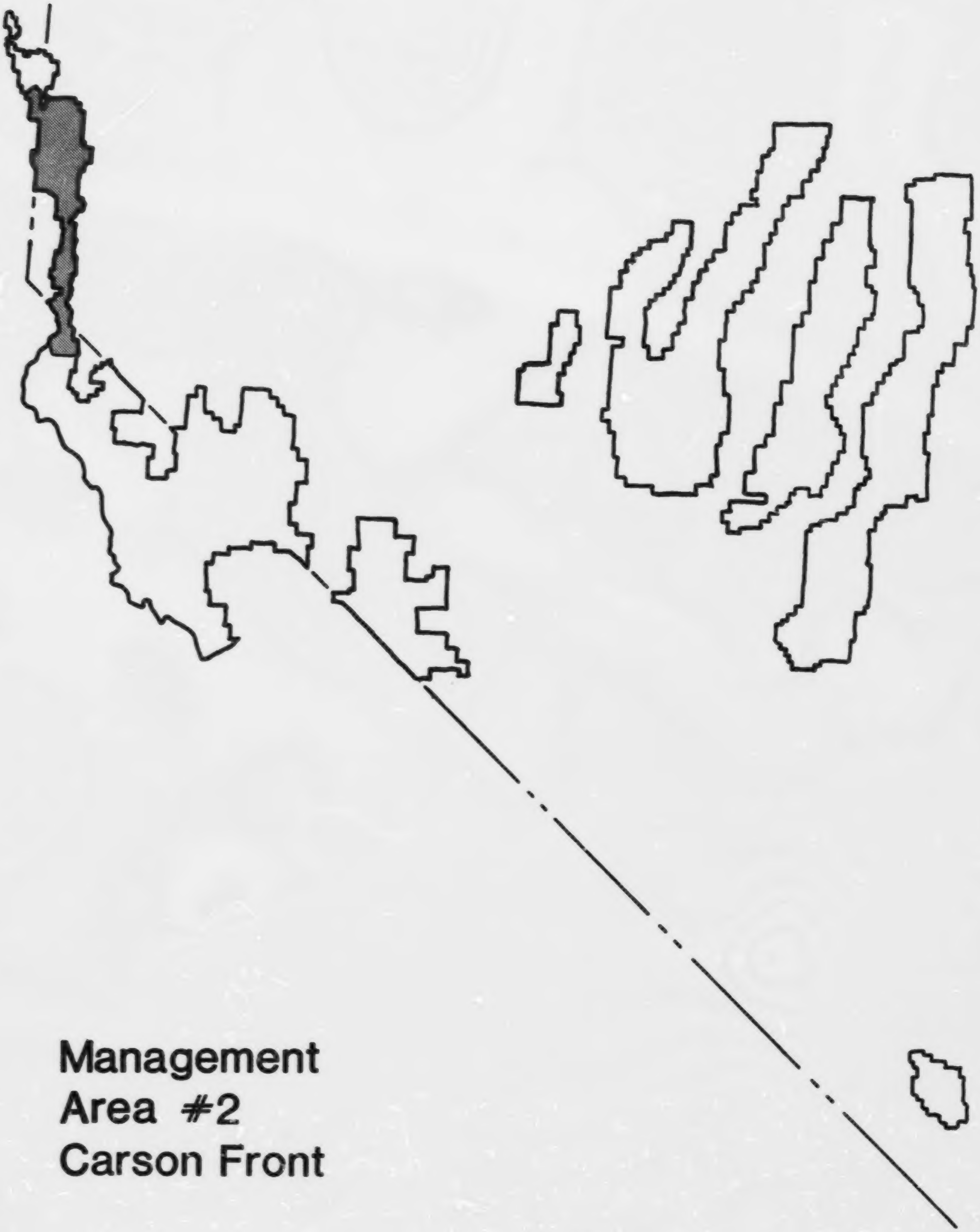
PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 1

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
FACILITIES	L12	(A)	Construct 1.3 miles of local roads.
FACILITIES	L13	(A)	Reconstruct 3.1 miles of local road.
FACILITIES	L24	(D)	Replace the existing Dog Valley Guard Station with a new Administrative Site. The new site location to be determined.
PROTECTION	P01	(D)	Coordinate and cooperate closely with the Nevada Division of Forestry, California Department of Forestry, BLM, and Truckee Meadows.
PROTECTION	P01	(A)	Implement the Sierra Front Initiative, See Fire Management Action Plan for detailed program work in Chapter V.
PROTECTION	P01 P12	(D)	Emphasize vegetation management treatment to reduce fire hazard both to private land develoment within and adjacent to the National Forest.

PROBABLE ACTIVITIES FOR THE SECOND DECADE

RANGE	D01	(A)	Complete 4 initial Range Allotment plans.
RANGE	D05	(A)	Complete 17 new structural range improvements.
RANGE	D07	(A)	Administer and manage 4 grazing allotments.
TIMBER	E04	(A)	Reforestation.
TIMBER	E05	(A)	Timber stand improvement.
FACILITIES	L12	(A)	Construct 1.0 miles of local roads.
FACILITIES	L13	(A)	Reconstruct 3.5 miles of local road.



Management
Area #2
Carson Front

MANAGEMENT AREA 2

Total acreage: 90.2 M net acres

The Carson Front Management Area includes all the National Forest lands south of the Truckee River Canyon and north of the West Fork of the Carson River. The lands that drain into the Lake Tahoe Basin are not included. The Management Area lies directly west of Reno, Carson City, and Minden-Gardnerville. These lands are directly visible from the Carson, Eagle, Washoe, and Truckee Meadows Valleys. The topography is exceptionally steep and rugged. The Carson Front provides watershed, wildlife, aesthetic and recreation resources important to the Reno, Verdi, Carson City, Lake Tahoe and foothill communities along the Eastern Sierra Slope and Carson Front. These resources are important to the quality of life offered by these communities. The expansion and development of these communities cause an urban interface problem of high density, high value lands and structures adjacent to National Forest wildlands. Fire protection, ORV use, trespass, and adverse resource damage pose the greatest challenge for Forest Service and other agency managers. Three municipal watersheds are located in this area; Truckee Meadows, Genoa, and Carson City. Although the lands support stands of Jeffrey pine and mixed conifer, logging has been limited in recent years because of the steep slopes, lack of access, and unstable soils. There have been several timber sales over the past 10-15 years, but firewood harvest has been the major activity. Livestock grazing has been limited to small areas of suitable range near Mt. Rose and Little Valley. The Management Area is heavily affected by special land uses such as highways, pipelines, and power lines all providing service to development within the Tahoe Basin. Fire protection is taking on a greater emphasis because of the private land development adjacent to and within the Forest. Private land development at the toe of slopes is unusually susceptible to wildfire because of the phenomena of strong downslope winds causing fire to burn downslope in many cases more hazardously than upslope. The unique weather pattern of erratic downslope winds contribute greatly to an increased threat of wildland fire moving from the Carson Front down into the foothill communities and housing developments. Resort development in Galena Creek will greatly affect the management of Forest Lands. Land ownership patterns are mixed and add to the complexity of management. Some section corner monumentation is unreliable or missing and boundary lines are deficient. Trespass and encroachments by adjacent landowners exist and a high potential exists for future unauthorized uses. A major facility (originally Job Corps Center) exists at Clear Creek near Carson City. A window for possible new utilities is established north and south of Kingsbury (Dagget Pass) from the Meyers-Buckeye line north to the Buckeye-Round Hill line.

Acreage suitable for timber production: 15,522 acres

TOTAL MANAGEMENT AREA DIRECTION

Key resource values in the Carson Front are watershed, wildlife, visual, and dispersed recreation. Management emphasis is to protect key resource values and property from wildfire. To accomplish this objective the following direction is provided:

Coordinate with federal, state and local governments to accomplish mutual recreation, wildlife and watershed objectives. The role of National Forest lands will be to emphasize dispersed recreation while other agencies and the private sector will provide developed site opportunities.

Manage the Carson Range to provide a diversity of recreation opportunities. Provide intensive management emphasis on National Forest lands along the Mt. Rose Highway and U.S. Highway 50 corridors. Management emphasis is to provide roaded natural experiences along major corridors and semi-primitive motorized and non-motorized experiences in other areas.

Conduct vegetation manipulation to enhance soil, water, wildlife and aesthetic values and minimize the potential for catastrophic wildfire and insect and disease infestation.

Implement concepts in the Sierra Fire Protection Initiative to minimize the potential for adverse effects of wildfire on property and resources.

Utilize existing transportation and utility corridors if new uses are proposed and manage all corridors to maintain high visual quality.

Management Prescriptions

Intensive Wildlife and Dispersed Recreation -- 90.2 M acres

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 2

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
CULTURAL RESOURCES	A02 A03	(D)	Complete inventory and evaluation of logging and water systems, particularly as they relate to the Comstock and Chinese occupation. Consider district nomination, as appropriate.
CULTURAL RESOURCES	A04	(D)	Conduct management activities to protect the setting of Genoa, a National Register District, and the first Nevada Settlement.
RECREATION	A07	(D)	Manage the Mount Rose campground as fee site by 1987.
RECREATION	A08	(D)	Manage ORV use on the Carson Range and regulate uses to protect soil, water, wildlife and esthetic values and to minimize conflicts with other users. Allow ORV use by on-the-ground vehicles on designated roads and trails only by 1990.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 2

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
RECREATION	A08	(D)	All motorized vehicles except snowmobiles are restricted to designated routes in the Hunter Lake and Tahoe Meadows area by 1988.
RECREATION	A08	(D)	Allow outfitter-guide permits for non-hunting uses. Permit helicopter ski operations based on recreation demand.
RECREATION	A08	(D)	Rehabilitate areas where ORV use has adversely affected the resources within this management area.
RECREATION	A08	(D)	Manage the Tahoe Meadows to accommodate snowmobiling, cross country skiing, and general snowplay by segregating conflicting recreation uses on the Meadows. Construct a trailhead and off-highway parking suitable for both summer and winter use and coordinate development with State and local agencies and private land owners by 1995.
RECREATION	A10	(D)	Coordinate with the Galena Resort to construct a trailhead to access Mt. Rose. Provide loop opportunities from the Carson Front if possible by 1990.
RECREATION	A10 A11	(A)	Construct five new miles of trail and reconstruct one mile of existing trails by 1987.
RECREATION	A11	(A)	Construct Tahoe RIM Trail. Provide connector trails to existing trails and proposed trails to Reno by 1995.
RECREATION	A12	(D)	Improve foot and horse trail system in Hunter and White Creek areas. Emphasize loop opportunities and connector trails to other trails managed by other federal, state or county agencies by 1992.
RECREATION	A14	(D)	Maintain a visual quality objective of retention along the Mount Rose, US 50 and Kingsbury Highways, and highway 206 (Foothill Road).
RECREATION	A14	(D)	Manage the seen area as viewed from US 395 and other major highway along the Sierra as partial retention.
WILDLIFE	C01	(D)	Provide for reintroduction of Lahontan Cutthroat trout in Franktown, West Gray, Bronco, Jacks Valley and Kings Canyon Creeks.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 2

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
WILDLIFE	C01	(D)	Provide for reintroduction of California Bighorn sheep.
WILDLIFE	C01	(D)	Perform field inventories to identify occupied habitat of sensitive species. Determine habitat needs and management strategies for sensitive species.
WILDLIFE	C01 C02 C03	(A)	Complete 240 structural habitat improvements and 310 acres of non-structural habitat improvements.
WILDLIFE	C02 C03	(D)	Emphasize maintenance and improvement of wildlife habitat.
RANGE	D01	(A)	Complete four initial range allotment plans and update two allotment plans.
RANGE	D02	(A)	Complete 35,650 acres of initial analysis and 2,500 acres of updated analysis.
RANGE	D02	(D)	Conduct range analysis on newly acquired lands and evaluate for possible livestock use.
RANGE	D05	(A)	Complete 11 new structural range improvements.
RANGE	D07	(A)	Administer and manage six grazing allotments.
TIMBER	E03 E07	(D)	Manage vegetation to protect and enhance watershed and visual quality. Maximize public fuelwood programs in salvage, thinnings and slash disposal activities. See Forest-wide standards for specific standards.
TIMBER	E04	(D)	Reforestation as needed to carry out stand silvicultural prescriptions.
TIMBER	E05	(D)	Timber stand improvement as needed to carry out stand silvicultural prescriptions.
WATER	F02	(D)	Manage the Carson City municiple watershed in Kings and Ash Canyon to provide quality water.
SOIL,WATER	F03	(A)	Complete 5 acres of watershed improvement.
SOIL, WATER	F03	(D)	Cooperate with the Nevada Department of Wildlife and the University of Nevada to improve the ecological condition of Little Valley Meadows.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 2

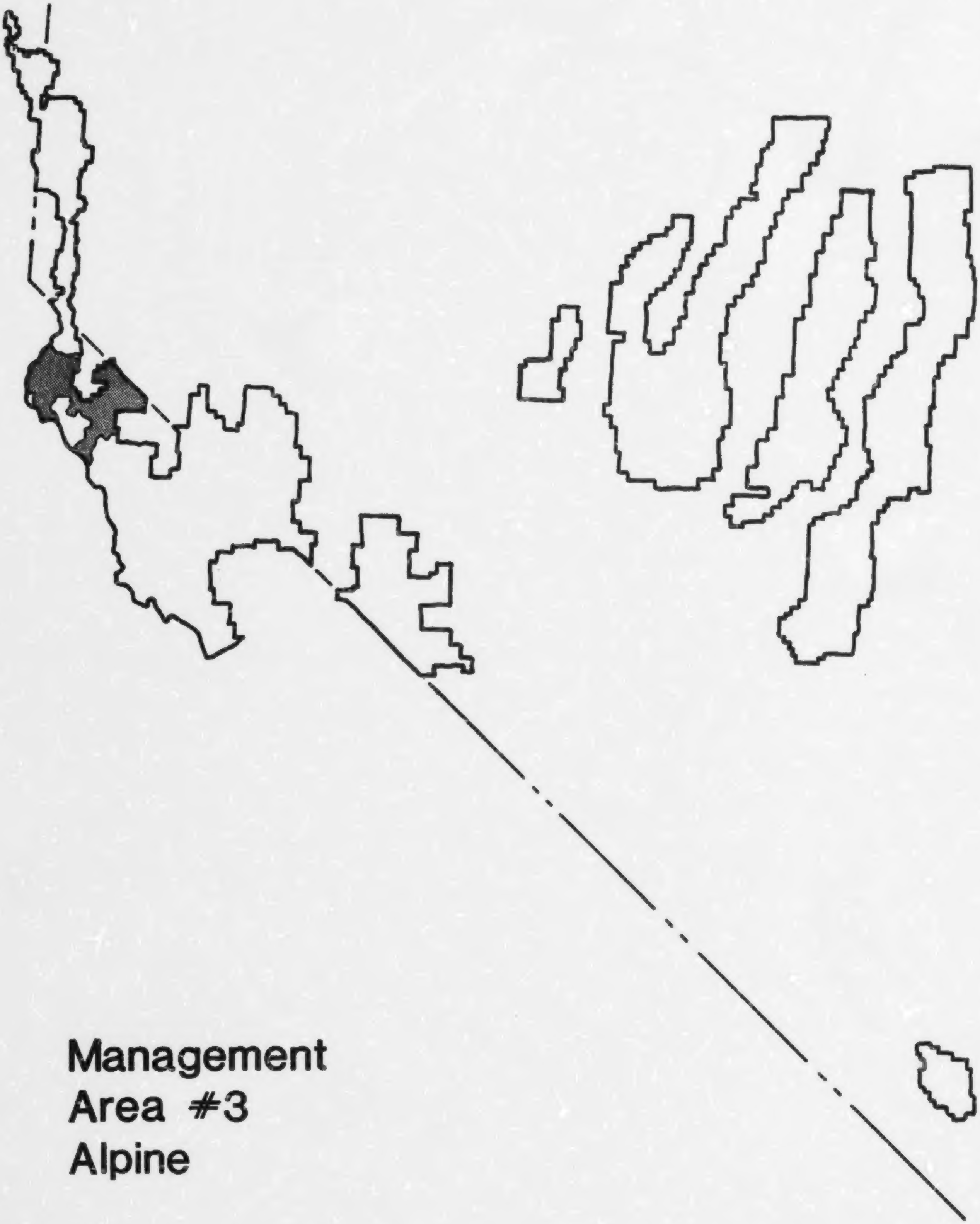
PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
SOIL, WATER	F10	(D)	Cooperate with federal, state and local agencies in informing landowners of potential floodplain hazards presented along Carson front. Encourage local authorities to monitor, zone, or restrict development in hazard prone areas.
WATER RIGHTS	F07	(A)	Process 8 claims for water rights.
MINERALS	G01	(D)	Recommended denial of new non-energy mineral leases on acquired land not subject to location.
SPECIAL USES	J01	(D)	Expansion of existing ski areas on or adjacent to National Forest lands will be subject to approved master plans.
LANDS	J05	(D)	Consolidate ownership on the Carson Range.
LANDS	J06	(D)	Post property boundaries where control/monumentation is established.
LANDS	J10	(D)	Inventory potential and existing trespass and encroachments on National Forest lands.
LANDS	J11	(D)	Cooperate with Pacific Southwest Region in analyzing the location of the proposed Trans-Sierra powerline from Sacramento to Carson City.
LANDS	J18	(D)	Acquire public access to the Carson Front.
PLANNING	J22	(D)	Expansion of Galena Resort onto National Forest lands will be reviewed through the NEPA process, in accordance with the approved Washoe County Plan.
FACILITIES	L01	(D)	Cooperate with Nevada State Department of Transportation and the Federal Highway Administration in improving the Mount Rose and Kingsbury Highways to meet National Forest and State/Local needs.
FACILITIES	L05	(A)	Reconstruct 7.3 miles of arterial roads.
FACILITIES	L12	(A)	Construct 5.2 miles of local roads.
FACILITIES	L13	(A)	Reconstruct 11.1 miles of local roads.
FACILITIES	L25	(D)	Clear Creek Job Corp Center will either be placed under SUP and brought up to state standards, facilities removed, or site disposed of.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 2

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
FACILITIES	L42	(D)	Manage the Slide Mountain electronics and other approved sites according the site plan and established rules for their management.
PROTECTION	P01	(D)	Coordinate and cooperate closely with the Nevada Division of Forestry, BLM, Truckee Meadows and local fire departments in suppressing wildfires.
PROTECTION	P01	(A)	Implement the Sierra Front Initiative. See Fire Management Action Plan for detailed program work in Chapter V.
PROTECTION	P11 P12	(D)	Emphasize vegetation management treatment to reduce fire hazard both to private land developement within and adjacent to the National Forest.

PROBABLE ACTIVITIES FOR THE SECOND DECADE

WILDLIFE	C01 C02	(A)	Complete 200 structural improvements and five nonstructural improvements and 175 acres of prescribed burning.
RANGE	D02	(A)	Complete 35,650 acres of initial analysis and 2,500 acres of updated analysis.
RANGE	D02	(D)	Conduct range analysis on newly acquired lands and evaluate for possible livestock use.
RANGE	D01	(A)	Complete four initial range allotment plans and update two allotment plans.
TIMBER	E04	(A)	Reforestation.
TIMBER	E05	(A)	Timber stand improvement.
FACILITIES	L12	(A)	Construct 5.0 miles of local roads.
FACILITIES	L13	(A)	Reconstruct 8.3 miles of local roads.



Management
Area #3
Alpine

MANAGEMENT AREA 3

Total acreage: 114.6 M net acres

The Alpine Management Area consists National Forest lands in Alpine County in addition to the Mokelumne Wilderness, and the Carson-Iceberg Wilderness. This management area includes the recommended addition (4,900 acre) to the Carson-Iceberg Wilderness. The topography varies from broad high mountain meadows such as Hope, Charity, and Faith Valleys to rugged mountain slopes and canyons along the West and East Fork of the Carson River. Vegetation includes commercial stands of Jeffrey pine, mixed red/white fir and high elevation stands of red fir/western white pine/mountain hemlock. Historically, logging of these stands has provided lumber for much of the early day development in the lower agricultural valleys. Presently, most of the logs are taken to the sawmill in Gardnerville. There are extensive suitable grazing lands in the area utilized by sheep or cattle. Range improvements and fences, which are important to successful management of the range resource, are in poor condition in this area. Alpine County is noted for its scenic and historical interests and is a popular recreation area, both summer and winter. There are six developed campgrounds, numereous trails including the Pacific Crest National Scenic Trail, stream and lake fishing and hunting. Winter activities include cross country skiing, helicopter skiing, snowmobiling, and general snow play. Large private tracts exist in the area. Most of the private lands belong to relatively few owners who have historically used the land for livestock grazing. This is changing with some of these prime recreation lands undergoing development. The increased development is requiring a greater emphasis for fire protection especially at the lower elevation. The Management Area includes the East Fork of the Carson River, a potential "Wild, Scenic, or Recreational" river that meets the eligibility criteria for possible classification. The Musser-Jarvis watershed is the municipal water source for Markleeville. There are a number of small reservoirs along the Sierra Crest used for irrigation and these reservoirs also provide fishing and public recreation. There are three sensitive plant species located in the Jobs-Freel Peak area identified on the California Native Plant Society List "Inventory of Rare and Endangered Vascular Plants in California". There are two pair of spotted owls (sensitive species) in this management area.

Acreage suitable for timber production: 22,027 acres

TOTAL MANAGEMENT AREA DIRECTION

Coordinate with federal, state and local agencies to provide for key resources of developed and dispersed recreation, wildlife, esthetics, and watershed. Emphasize fire prevention and protection with other agencies and local governments to maintain the key resource values.

Provide for increasing developed site capacity and enhancing dispersed recreation opportunities.

Conduct vegetative manipulation to enhance watershed, range, wildlife, esthetic and vegetative vigor and to minimize the potential for catastrophic wildfire and insect and disease infestations.

Acquire the Leviathan Mine site from the State of California when suitable rehabilitation has occurred.

Emphasize acquisition of private lands to enhance recreation, esthetic and resource protection objectives.

Assure Lahontan Cutthroat trout habitat is enhanced. Cooperate with California Department of Fish and Game and the U.S. Fish and Wildlife Service to increase populations.

Give priority to upgrading existing range structural improvements.

Primary recreation management emphasis is to provide roaded natural experiences along county and state roads, and semi-primitive motorized and semi-primitive non-motorized experiences in other areas.

Protect the wilderness character of the portion of the Carson-Iceberg not recommended for wilderness until Congress acts on the report for the entire area.

Management Prescriptions

Wilderness (addition to the Carson-Iceberg)	4.9 M Acres
Intensive Wildlife and Dispersed Recreation	32.4 M Acres
Market Opportunities and Developed Recreation	77.3 M Acres

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 3

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
CULTURAL RESOURCES	A01 A02 A03 A04	(D)	Inventory and evaluate emigrant trails and related resources. Develop a management plan to protect and/or interpret those areas deemed significant.
CULTURAL RESOURCES	A02 A03 A04	(D)	Inventory and evaluate Silver Hill area for nomination to the National Register and/or the need for protection.
CULTURAL RESOURCES	A02 A03	(D)	Inventory and evaluate prehistoric resources in Barber Peak area.
CULTURAL	A02 A03	(A)	Relocate and evaluate archial site along the Carson river.
CULTURAL RESOURCES	A04	(D)	Protect the integrity of the Woodfords Cemetery as a Native American Site.
RECREATION	A05	(A)	Reconstruct Hope Valley campground.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 3

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
RECREATION	A06	(A)	Construct Faith Valley campground.
RECREATION	A07	(D)	Operate and maintain all campgrounds as fee sites.
RECREATION	A07	(D)	Protect the proposed Faith Valley campground from damaging activities.
RECREATION	A08	(D)	Coordinate with Alpine County to assure that Hope Valley retains its natural condition and values. Utilize zoning and acquisition as primary methods to accomplish this.
RECREATION	A08 A14	(D)	Protect the East Fork of the Carson River from any activity that may reduce its suitability for Wild/Scenic/Recreational River Classification until a suitability study is completed and recommendation is made. Interim management will be in accordance with Wild and Scenic River Management guidelines. Cooperate with BLM to improve the quality of the hot springs along the river.
RECREATION	A08	(D)	Maintain off-road vehicle closures to resolve conflicts between snowmobiles and cross country skiers, and to prevent resource damage.
RECREATION	A08	(D)	Analyze and update annual Off Road Vehicle (ORV) Management to assure the protection of soil, water and wildlife values and to enhance dispersed management opportunities.
RECREATION	A08	(D)	Coordinate with the State and County to construct facilities at Blue Lakes/Highway 88 junction to enhance winter recreation opportunities and provide for health and sanitation facilities by 1993.
RECREATION	A10	(A)	Reconstruct 12 miles of existing trails by 1993.
RECREATION	A12	(D)	Manage Pacific Crest National Scenic Trail to level IV maintenance and in accordance with the National Scenic Trails Act.
RECREATION	A14	(D)	Manage State Highway 88 and 89 to maintain State Scenic Highway qualities. Cooperate with Alpine county, Caltrans and Eldorado National Forest in managing the Highway 88 corridor. Emphasize scenic and historical interest as primary resource values.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 3

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
RECREATION	A14	(D)	Manage State Scenic Highway 4 corridor for developed and dispersed recreation in a roaded natural setting. Permit off road vehicle use on designated routes.
RECREATION	A14	(D)	Maintain a visual quality objective of partial retention along U.S. 4, U.S. 88, and U.S. 89.
RECREATION	A14	(D)	Manage the foreground and middleground as partial retention for areas seen from State Highways 88, 89, and 4.
WILDERNESS	B03	(D)	Protect the wilderness characteristics of the portion of the Carson-Iceberg not recommended for wilderness until Congress acts on the report for the entire area.
WILDLIFE	C01	(D)	Provide for reintroduction of California Bighorn sheep.
WILDLIFE	C01	(D)	Perform field inventories to identify occupied habitat of sensitive species. Determine habitat needs and management strategies for sensitive species.
WILDLIFE	C01	(D)	Protect the sensitive plant community on and near Freel Peak.
WILDLIFE	C01	(D)	Cooperate with the California Department of Fish and Game in securing and maintaining conservation pools in as many of the small reservoirs along the Sierra Crest as possible.
WILDLIFE	C01	(D)	Manage the 5,488 acre Barber Peak area to protect this critical deer winter range. This includes allocating all forage to wildlife. Cooperate with the US Fish and Wildlife Service in predator control to minimize effects on wintering big game herds.
WILDLIFE	C02 C03	(D)	Give priority to rehabilitation of key deer winter range damaged by fire if these areas will not recover naturally in a reasonable amount of time. Complete 150 sturctural habitat improvements and 100 acres of non-structural habitat improvements.
RANGE	D01	(A)	Complete 9 initial Range Allotment plans and update 1 plan.
RANGE	D02	(A)	Complete 10,240 acres of initial analysis and 3,100 acres of updated analysis.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 3

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
RANGE	D03	(A)	Complete 900 acres of nonstructural initial improvements.
RANGE	D05	(A)	Complete 46 new structural improvements.
RANGE	D07	(A)	Administer and manage 14 grazing allotments, and complete examinations on 14 allotments.
RANGE	D07	(D)	Promote the continuance of private land grazing permits in the Hope Valley area.
TIMBER	E03	(D)	Develop silvicultural prescriptions considering visual, wildlife and site productivity and economics as important factors.
TIMBER	E04	(D)	Reforestation as needed to carry out stand silvicultural prescriptions.
TIMBER	E05	(D)	Timber stand improvement as needed to carry out stand silvicultural prescriptions.
TIMBER	E07	(D)	High risk old growth and overstocked intermediate Jeffrey Pine stands are highest priority for harvest. See Forest-wide standards for specific timber management activities.
SOIL, WATER	F03	(D)	Complete the rehabilitation of the Leviathan Mine Site. Conduct annual maintenance of structures.
SOIL, WATER	F03	(D)	Protect Leviathan Mine site from activities that will be adverse to the revegetation aand maintenance of improvements.
SOIL, WATER	F03	(D)	Continue to manage the Musser-Jarvis Municipal watershed as follows: Allow no livestock grazing, no road or trail construction, and no timber cutting.
LANDS	J18	(D)	Utilize existing borrow pits. Do not establish additional borrow pits in Woodfords Canyon.
LANDS	J18	(A)	Provide public access to the Toiyabe National Forest in the Luther Canyon area.
PLANNING	J22	(D)	Assist Alpine County in maintaining or improving the tax base through the land exchange program.
PLANNING	J22	(D)	Coordinate with other agencies in providing resource data for the proposed Watasheamu Dam and resevoir.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 3

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
FACILITIES	L01	(D)	Improve the Blue Lakes road through the Forest Highway program.
FACILITIES	L12	(A)	Construct 6.4 miles of local roads.
FACILITIES	L13	(A)	Reconstruct 13.4 miles of local roads.
FACILITIES	L42	(D)	Manage the following electronics and antenna sites according to site plans and established rules for their management: Hawkins Peak - Electronics Site Leviathan Peak - Electronics Site
PROTECTION	P01	(D)	Practice an aggressive fire management program to protect watershed values and private land below National Forest lands along the Woodfords face.
PROTECTION	P01	(D)	Manage vegetation in the Shay Creek summer home area to minimize current and future loss to insect disease, and wildfire.

PROBABLE ACTIVITIES FOR THE SECOND DECADE

RANGE	D01	(A)	Complete 9 initial Range Allotment plans and update 1 plan.
RANGE	D02	(A)	Complete 10,240 acres of initial analysis and 3,100 acres of updated analysis.
RANGE	D03	(A)	Complete 900 acres of nonstructural initial improvements.
RANGE	D05	(A)	Complete 46 new structural improvements.
RANGE	D07	(D)	Continue to manage the Musser-Jarvis Municipal watershed as follows: Allow no livestock grazing, no road or trail construction, and no timber cutting.
RANGE	D07	(A)	Administer and manage 14 grazing allotments,and complete examinations on 14 allotments.
TIMBER	E04	(A)	Reforestation.
TIMBER	E05	(A)	Timber stand improvement.
FACILITIES	L12	(A)	Construct 6.3 miles of local roads.

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FACILITIES	L13	(A)	Reconstruct 11.1 miles of local roads.

THE FOLLOWING DIRECTION, ACTIVITIES, AND PRACTICES APPLY TO THE RECOMMENDED ADDITION TO THE CARSON-ICEBERG WILDERNESS:

RECREATION	A12	(D)	Maintain the Pacific Crest National Scenic Trail in accordance with the National Scenic Trails Act to Level IV Maintenance Standards. Maintain the closure of the trail to motorized vehicles.
WILDLIFE	C01	(D)	Wildlife and fish transplants will be considered only if species are indigenous to the area.
RANGE	D07	(D)	Manage livestock in Noble Canyon to minimize conflicts with Pacific Crest National Scenic Trail users.
RECREATION	A08	(D)	Reduce recreation and range conflicts at Noble Lake.

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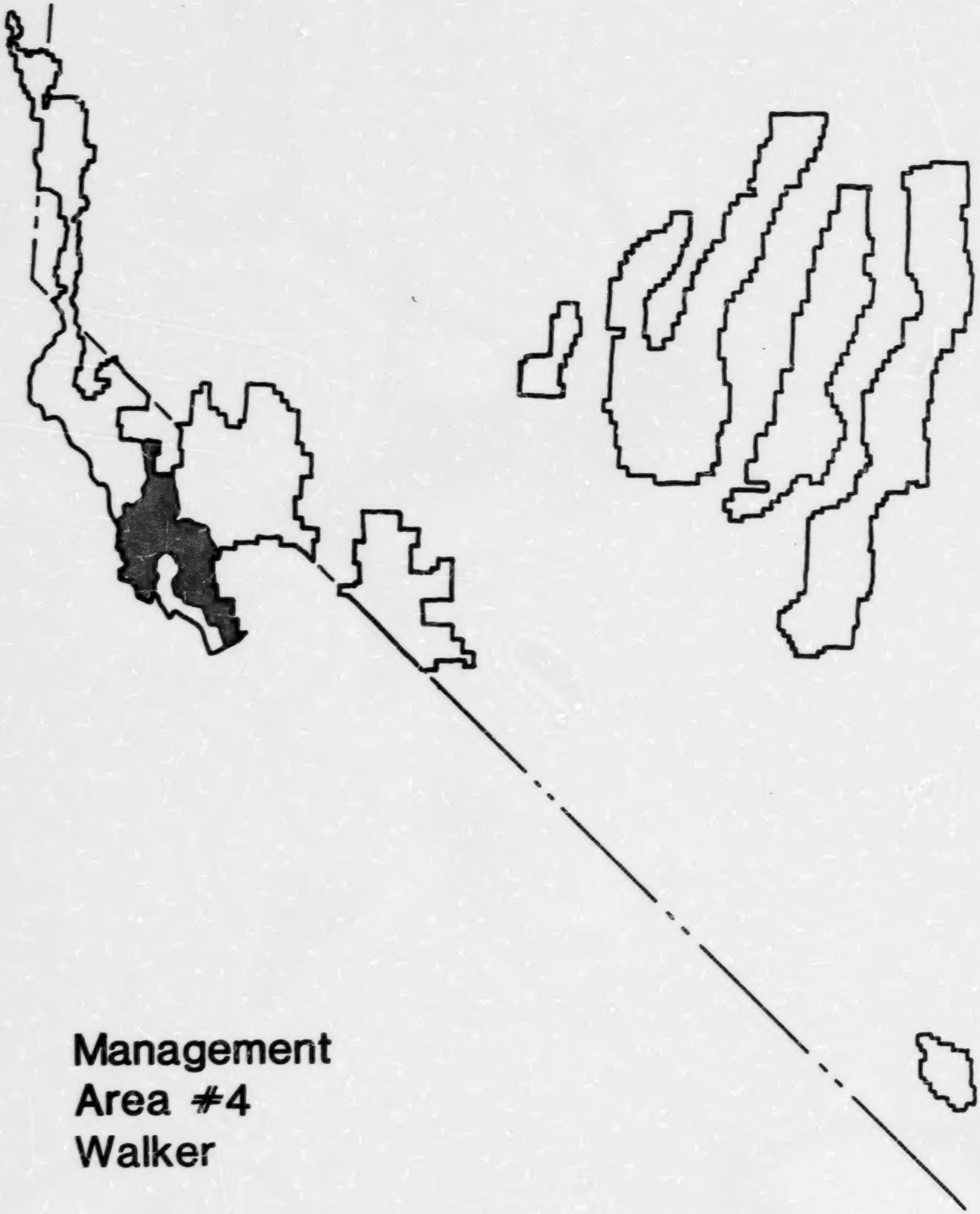
STANDARDS AND GUIDELINES FOR WILD AND SCENIC RIVERS
Prescriptions By Resource and Activity
(National Forest Lands within 1/4 mile of each streams)
East Fork of Carson River

Potential River Classes	Timber Management	Water Development F & R C Projects	Mining	Other Development
Wild Source of Grey's crossing - 25 miles	No commercial timber removed. Cutting limited to removal incidental to primitive recreation such as trail management.	Dams and diversions prohibited. Unobtrusive removal of water for livestock and wildlife may be permitted.	Leasing not recommended. Common varieties will not be sold. Minerals management will be subject to ED.	New developments will be located outside river area environment (generally 1/4 mile).
Scenic Hangmans Bridge to Last Diverson Dome approx. 1 mile above Lahonton Fish Hatchery - 21 miles	Some timber removal permitted but no substantial adverse effect on river and immediate environment. Removal of insect and disease trees are examples of permitted removal.	Minor diversions may be permitted if no direct effect on free flowing river values.	Leasing and common varieties same as wild. Prospecting, development, and extracting of minerals will be done to minimize surface disturbance and fully mitigated to extent feasible.	New structures and developments may be permitted but will be limited to short stretches of the river corridor. Such structures and development will not have direct effect on the river.
Recreational Greys Crossing to Hangmans Bridge - US 89 1 1/2 miles east of Markleville - 11 1/2 miles	Timber harvesting permitted but esthetic, fish, wildlife, and other values will be protected.	Same as scenic.	Same as scenic.	Campgrounds, picnic areas, other developments permitted but will be designed to protect values for which river area was found to be eligible.



Management
Area #4
Walker

MANAGEMENT AREA 4

Total acreage: 203.7 M net acres

The Walker Management Area includes all the National Forest lands west of US 395 in Mono County, California, and the recommended addition to the Hoover Wilderness. The area does not include the Hoover Wilderness. The Management Area is a high elevation area, with a rugged Sierra Nevada landscape of very high esthetic and visual quality. Although the area supports stands of commercial Jeffrey pine, mixed conifer, and lodgepole pine, the timber is scattered and is interspersed with areas of grass/brush vegetation. The Management Area is drained by the West and East Fork of the Walker Rivers and provides extensive recreational opportunities, important wildlife habitat, and livestock grazing. Lake and stream fishing is outstanding. The Twin Lakes, Virginia Lakes, Green Creek, Buckeye Creek, Little Walker River, and Leavitt Meadows areas are highly developed and popular recreational areas. These areas are one of the heaviest used complexes in the Intermountain Region where publics from Los Angeles and San Francisco are dependent on their destination opportunities. Visitor services are key to the successful operation and maintenance of these complexes. These recreational complexes include campgrounds, trailheads and pack stations, fishing resorts on private lands and under Forest Service permit, summer homes on both National Forest and private inholdings. Winter recreation activities include heliocopter skiing, snowmobiling, and cross-country skiing. The community of Bridgeport is heavily dependent on recreation economies from the area (e.g. Twin Lakes recreation complex). There are a number of significant special land uses in the Management Area, especially the US Marine Corps Mountain Warfare Training Center at Pickle Meadows. The area provides summer grazing for sheep and cattle. Most ranches are located in the lower valleys in Nevada where the animals are wintered and the livestock are moved to the National Forest for the summer. The lower elevations have a history of large fires and increasing private land development is accelerating the need for fire protection. The Management Area includes the West Walker River that meets the eligibility criteria for possible "Wild and Scenic" River classification. There is a SCS "Snow/tel" and snow course within the proposed wilderness boundary.

Acreage suitable for timber production: 14,540 acres

TOTAL MANAGEMENT AREA DIRECTION

Management emphasis within the recommended Walker addition to the Hoover Wilderness will be to meet the objectives and intent of the Wilderness Act. In the remainder of the management area, emphasis will be directed toward the amenity values of wildlife, dispersed recreation, developed recreation, water quality, along with developed recreation in the major canyons and along the highways.

Provide for implementation a cost effective and coordinated fire protection program.

Management Prescription

Wilderness 1/	49.2 M acres
Intensive wildlife and dispersed recreation	118.8 M acres
Market opportunites and developed recreation	84.9 M acres

1/ Use "wilderness" management prescription to protect wilderness values and to carry out objectives and intent of the California Wilderness Act.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 4

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
CULTURAL RESOURCES	A01 A02 A03 A04	(A)	Inventory and evaluate early emigrant trails. Develop a management plan to protect and/or interpret those areas deemed signigicant.
CULTURAL RESOURCES	A02 A03	(A)	Relocate and evaluate archial sites located along the Walker River near Sonora Junction and Leavitt Meadows.
RECREATION	A01	(A)	Develop a Master Plan for the Leavitt Lodge Special Use complex.
RECREATION	A05	(A)	Reconstruct Lower Twin, Sawmill, and Honeymoon campgrounds. Rehabilitate water systems at the Trumbull Lake Campground by 1988.
RECREATION	A06	(A)	Construct Lake and Boulder Campgrounds and the Bridgeport Visitor Information Center by 1988.
RECREATION	A07	(D)	Operate and maintain, to standards, developed recreation sites as fee sites.
RECREATION	A07	(D)	The following direction applies to the Twin Lakes recreation area to meet public recreation demand: (1) Expand the developed campground capacity. (2) Rehabilitate existing campgrounds. (3) Restrict overnight camping to developed sites. (4) Allow no commercial pack stations to operate on NF lands. (5) Improve access to upper and lower Twin Lakes. (6) Issue no outfitter guide permits that involve stock use in the canyon.
RECREATION	A07	(D)	The following direction applies to the Virginia Lakes recreation area to meet public recreation demand: (1) Protect the Castle Rock and Virginia Creek sites for possible future development. (2) Construct a trailhead above Trumbull Lake Campground.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 4

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
RECREATION	A07	(D)	The following direction applies to the Green Creek recreation area to meet public recreation demand: (1) Allow no commercial pack station. (2) Construct a trailhead facility.
RECREATION	A07	(D)	The following direction applies to the Leavitt Meadows, Leavitt and Koenig Lake area: (1) Allow no USMC activity in the Leavitt Meadows campground. (2) Close the Leavitt Lake road to vehicles during wet periods. (3) Allow no camping or vehicle travel within 200 feet of Leavitt Lake.
RECREATION	A08	(D)	Management will provide high quality vistor information and education at the Bridgeport Ranger Station, trailheads, campgrounds, and back country.
RECREATION	A08	(A)	All motorized vehicles except snowmobiles are restricted to designated routes in the Silver Creek Meadows area, Summit Meadows, Leavitt Meadows, Little Walker-Eagle Peak, Summers Meadows area and the Dunderberg-Jordon Basin area. Within the east slope off the Monitor Pass Highway, all motorized vehicles including snowmobiles, are restricted between Dec. 1 and June 1.
RECREATION	A08	(D)	Protect the Wild, Scenic and/or Recreational qualities of the West Walker River until a suitability study is completed.
RECREATION	A08	(D)	Limit boating on Big Virginia Lake and at Little Virginia Lake and Trumbull Lake to nonmotorized boats.
RECREATION	A08	(D)	Manage all developed campgrounds as fee sites and to standard.
RECREATION	A10	(A)	Reconstruct 7 miles of existing trails by 1989.
RECREATION	A11	(A)	Acquire public access to the Hoover Wilderness across private lands above Upper Twin Lake. Construct trailhead to facilitate public use by 1990.
RECREATION	A11	(D)	Manage Sonora Pass, Chango Lake, Lost Canyon Peak areas, Eagle Peak, Sawmill Ridge's and Little Walker Long Valley area to meet semi-primitive non-motorized recreation objectives.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 4

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
RECREATION	A14	(A)	Manage the following areas to meet a VQO of retention: Virginia Lakes road, Robinson Creek road, Robinson Creek-Buckeye road, Green Creek road, Sonora Pass highway, Leavitt Lake road, and US 395 (Walker River Canyon).
WILDLIFE	C01	(D)	Provide for reintroduction of Lahontan cutthroat trout in Mill Creek as per approved Environmental Assessmemt, and maintain and manage for other existing populations in other streams.
WILDLIFE	C01	(D)	Provide for reintroduction of California Bighorn sheep and peregrine falcon.
WILDLIFE	C01	(D)	Manage snowmachine access to eliminate conflicts with wintering big game.
WILDLIFE	C01	(D)	Update and implement the East Walker and West Walker deer herd plans.
WILDLIFE	C01	(A)	Complete 95 structural habitat improvements and 1028 acres of non-structural habitat improvements.
WILDLIFE	C03	(D)	Give priority of wildlife structural improvements to Lahontan cutthroat trout.
RANGE	D01 D06	(A)	Complete 6 new Range Allotment Management Plans and update 12 others.
RANGE	D01	(D)	Utilize Little Walker as a demonstration allotment to show how grazing can be compatible with recreation, watershed, and wildlife.
RANGE	D02	(A)	Complete 46,145 acres of initial range allotment analysis.
RANGE	D03		Complete 100 acres of nonstructural initial improvements.
RANGE	D05	(A)	Complete 5 new structural improvements.
RANGE	D06	(A)	Complete maintenance on approximately 19 structural improvements yearly.
RANGE	D07	(D)	Evaluate the grazing resource and activities in the area between Doc and Al's resort and Honeymoon campground (Robinson Creek area) and if necessary, close to livestock grazing except for authorized trailing.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 4

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
RANGE	D07	(D)	Emphasize management on Little Walker allotment to standard; bring the resource value rating for livestock to a good or better condition.
RANGE	D07	(D)	Strive to achieve good or excellent resource value rating for livestock; along West Walker River above Leavitt Meadow, Green Creek, and Buckeye maintain at least 90 percent of the natural bank stability as measured by the General Aquatic Wildlife System (GAW's).
RANGE	D07	(D)	Evaluate the grazing resource and activities in Virginia Creek and, if necessary, close the area to livestock grazing.
RANGE	D07	(A)	Administer and manage 19 allotments.
TIMBER	E04	(D)	Reforestation as needed to carry out stand silvicultural prescriptions.
TIMBER	E05	(D)	Timber stand improvement as needed to carry out stand silvicultural prescriptions.
TIMBER	E07	(D)	Manage firewood around lakes and streams to protect ecological and recreation values.
TIMBER	E07	(D)	Provide a continuing supply of fuelwood made available through the District personal and commercial fuelwood programs.
SOIL & WATER	F03	(A)	Complete 11 acres of improvement.
FACILITIES	L09	(D)	Improve the Robinson Creek-Buckeye road to accommodate recreation vehicles and provide for user convenience. Institute seasonal road closures as necessary to protect roads from damage during wet periods.
FACILITIES	L12	(A)	Construct 7.4 miles of local roads.
FACILITIES	L13	(A)	Reconstruct 3.7 miles of local roads.
FACILITIES	L19	(D)	Maintain existing road closure at By-Day Creek.
SPECIAL USES	J01	(D)	The following direction applies to the areas used by the US Marine Corps: (1) Allow for general public use of the area in addition to USMC use. (2) Coordinate and cooperate with the USMC in fire suppression, search and rescue, and maintenance of forest development roads within the limited area.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 4

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
			(3) Give priority to military uses within the intensive use area. (4) Continue public use through the camp over the Silver Creek road.
LANDS	J11	(D)	Strive to acquire private lands in Management Area that meet Forest-wide land acquisition criteria.
LANDS	J15	(D)	Consolidate ownership in area of intense recreation use and/or high natural hazard potential.
PROTECTION		(D)	Maintain a state of preparedness to volcanic activity in the Long Valley Caldera as outlined in the Contingency Plan.
PROTECTION	P11	(D)	Emphasize fuel management treatment near Robinson Creek-Buckeye, Walker River Canyon and in Antelope Valley, to achieve objectives set in the Sierra Front Initiative. Maintain existing fuelbreaks in Twin Lakes, in the West Walker Canyon, and behind the town of Walker. See Fire Management Action Plan for detailed program work in Chapter V.

PROBABLE ACITIVITIES FOR THE SECOND DECADE

WILDLIFE	C01	(A)	Complete 95 structural improvements and 18 nonstructural improvements and 1010 acres of prescribe burning.
RANGE	D01	(A)	Complete 6 new Range Allotment Management Plans and update 12 others.
RANGE	D01	(D)	Utilize Little Walker and Paiute as a demonstration allotment to show how grazing can be compatible with recreation, watershed, and wildlife.
RANGE	D02	(A)	Complete 46,145 acres of initial range allotment analysis.
RANGE	D03		Complete 100 acres of nonstructural initial improvements.
RANGE	D05	(A)	Complete 5 new structural improvements.

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PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 4

PRACTICE	MIH CODE	MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
RANGE	D07	(D) Evaluate the grazing resource and activities in the area between Doc and Al's resort and Honeymoon campground (Robinson Creek area) and, if necessary, close to livestock grazing except for authorized trailing.

THE FOLLOWING DIRECTION, ACTIVITIES, AND PRACTICES APPLY TO THE PROPOSED ADDITION TO THE HOOVER WILDERNESS:

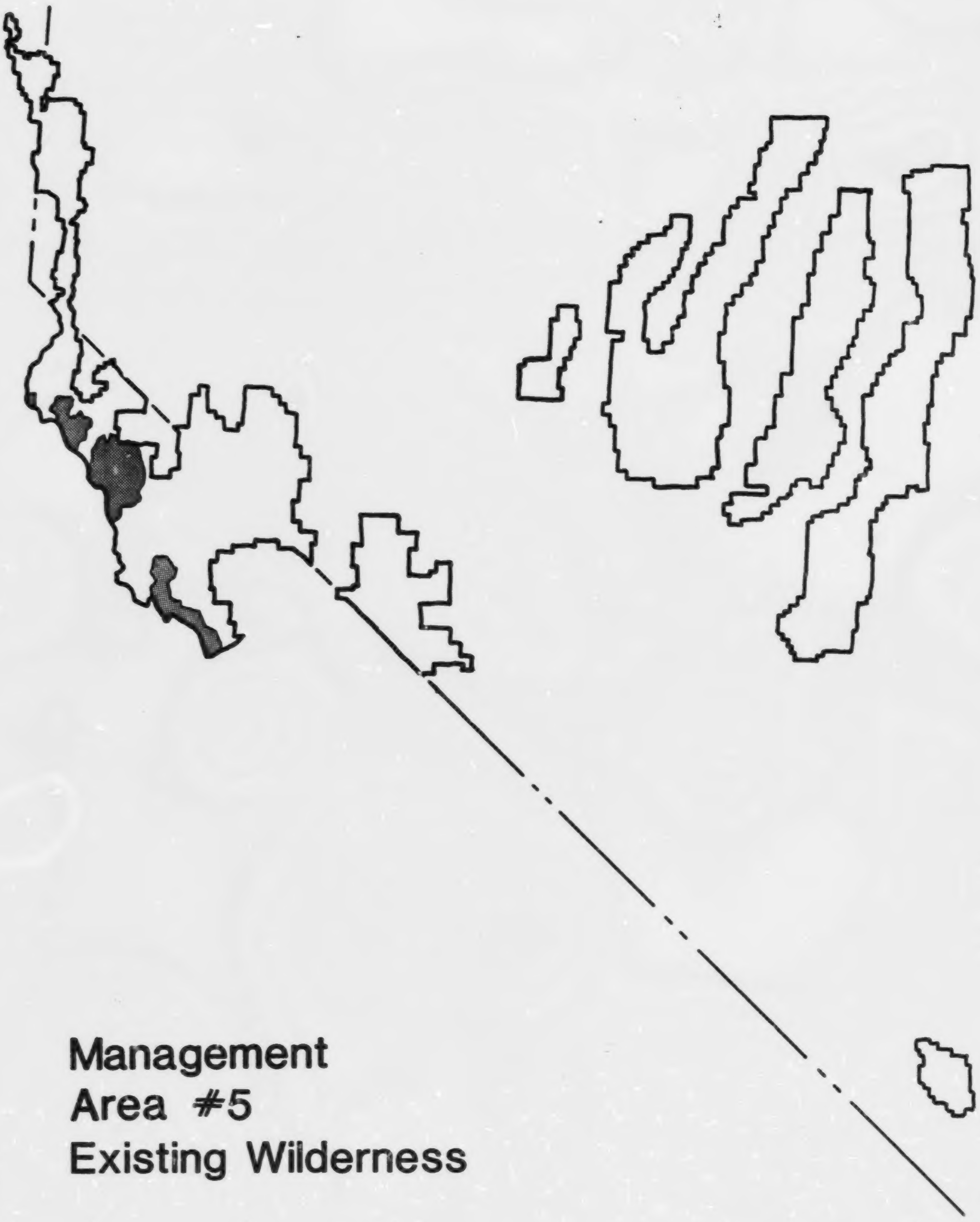
PRACTICE	MIH CODE	MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
RECREATION	A12	(D) Maintain the Pacific Crest Trail to Level IV Maintenance. Maintain the closure of the trail to motorized vehicles.
RECREATION	A03	(D) Limit party size and stock numbers so wilderness values and ecological condition are not degraded. The recreation carrying capacity will determine the recommended use levels to keep this area in high ecological condition.
WILDLIFE	C01	(D) Wildlife and fish transplants will only be considered if indigenous to the area.
MINERALS	G01	(D) Close the Snow Lake mining road above Leavitt Lake to all motorized vehicles. Allow only vehicle travel associated with approved Operating Plans pursuant to the 1872 Mining Act use regulations. Coordinate any proposal with the Stanislaus National Forest.
FACILITIES	L25	(D) Retain the cabin and horse pasture at Upper Paiute Meadows to facilitate management of the proposed wilderness and the existing Hoover Wilderness. Maintain cabin to retain a rustic appearance.
RECREATION	A08	(D) Monitor recreation use around the high lakes and eliminate overnight use or restrict camping immediately adjacent to the lakes to protect soil, water and esthetic values.
RECREATION	A08	(D) Implement the Wilderness Permit System for this recommended wilderness addition for consistancy with current Hoover Wilderness Management.
RANGE	D01	(A) Complete 2 new allotment management plans and update one plan.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 4

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
RANGE	D01	(D)	Utilize Paiute as a demonstration allotment to show how grazing can be compatible with recreation, watershed and wildlife.
RANGE	D02	(A)	Complete 37,265 acres of updated range analysis.
RANGE	D07	(A)	Administer and manage 3 permits.

STANDARDS AND GUIDELINES FOR WILD AND SCENIC RIVERS
Prescriptions By Resource and Activity
(National Forest Lands within 1/4 mile of each stream)
West Walker River

Potential River Classes	Timber Management	Water Development F & R C Projects	Mining	Other Development
Wild Source (Tower Lake) to Leavitt Meadows - 13 miles	No commercial timber removed. Cutting limited to removal incidental to primitive recreation such as trail management.	Dams and diversions prohibited. Unobtrusive removal of water for livestock and wildlife may be permitted.	Leasing not recommended. Common varieties will not be sold. Minerals management will be subject to ED.	New developments will be located outside river area environment (generally 1/4 mile).
Scenic Leavitt Meadows to US 395 - 11.1 miles	Some timber removal permitted but no substantial adverse effect on river and immediate envirnment. Removal of insect and disease trees are examples of permitted removal.	Minor diversions may be permitted if no direct effect on free flowing river values.	Leasing and common varieties same as wild. Prospecting, development, and extracting of minerals will be done to minimize surface disturbance and fully mitigated to extent feasible.	New structures and developments may be permitted but will be limited to short stretches of the river corridor. Such structures and development will not have direct effect on the river.
Recreational US 395 to Topaz Lake Diverson - 21.7 miles	Timber harvesting permitted but esthetic, fish, wildlife, and other values will be protected.	Same as scenic.	Same as scenic.	Campgropunds, picnic areas, other developments permitted but will be designed to protect values for which river area was found to be eligible.



Management
Area #5
Existing Wilderness

MANAGEMENT AREA 5

Total acreage: 135.1 M net acres

This Management Area consists of three established wilderness areas:

Acres	Toiyabe Acres	Other Forest Acres	Total Acres
Hoover	39,094 Acres	Inyo N.F.	47,937
Carson-Iceberg	77,000 Acres	Stanislaus N.F.	160,000
Mokelumne	19,000 Acres	Eldorado N.F. Stanislaus N.F.	105,165

The Hoover Wilderness lies along the eastern slope of the Sierra Nevada Range in California, and possesses very high esthetic and visual quality. Elevations range from 7,700 to 12,596 feet. It is bounded on the west by the North Tuolumne backcountry portion of Yosemite National Park. There are six major drainages in the Toiyabe Forest portion of the Hoover: Little Walker River, Molybdenite Creek, Buckeye Creek, Robinson Creek, Green Creek, and Virginia Creek. The dams and reservoirs in the Green Creek drainage pre-date establishement of the National Forest, and are not under special use permit; they are owned by private individuals. Outstanding natural beauty can be found in each of these areas. Prominent peaks such as Matterhorn, Twin, Crown Point, Eagle, Dunderberg, Excelsior, Hawksbeak and Black Mountain are favorites of mountain climbers and photography buffs. This whole region is characterized by "U" shaped canyons caused by glacial activity. Canyon bottoms frequently have extensive flats with shallow streams and grassy meadows. The Matterhorn Peak area still retains portions of its glacial past in the form of five perennial snow fields. The vegetation of the area is scattered among the rocky flats and ledges of the Sierra granite batholith. The major cover types are alpine, subalpine forest, red fir forest, mixed conifer forest, and sagebrush. The Hoover includes all or portions of five grazing allotments, the entire area historically supported populations of California Big Horn Sheep, although currently there are no existing populations. The Hoover Wilderness is rich in history with many of the names of its lakes and geological features being derived from "yesterday's travelers" who, up to the 19th Century, were the Paiute and Southern Washoe Indians.

The Carson-Iceberg Wilderness includes the headwaters of the East Fork of the Carson River, Wolf Creek, and Silver King. The wilderness includes lands both on the Toiyabe and Stanislaus N.F. The area is mountainous with several peaks over 10,000 feet. There are several major streams, and broad meadows, as well as narrow canyons. The topography becomes steeper and rougher on the west or near the main Sierra Crest. There is a wide variety of vegetative types from commercial timber stands to barren country. Other vegetative communities are sagebrush-grass meadow and pinyon-juniper. The Carson-Iceberg contains some key habitat for the Paiute and Lahonton Cutthroat trout.

The Mokelumne Wilderness includes two separate parcels, the area around Raymond Peak and the Tragedy-Elephants Back area at the head of Forestdale Creek. Both areas are at high elevation and near or adjacent to the Sierra Crest. Trees are scattered and the area is close to or above timberline in many locations. The Pacific Crest Trail is located through the area. Prominent Peaks include Reynolds Peak and Raymond Peak.

Acreage suitable for timber production: ___0___ acres

TOTAL MANAGEMENT AREA DIRECTION

Management emphasis will be toward meeting objectives and intent of the Wilderness Act.

Manage wilderness to provide outstanding opportunities for solitude, physical and mental challenge, primitive recreation, and to maintain the wilderness characteristics of the land.

Maintain continuity and consistency of management decisions among separate authorities administering portions of the same wilderness.

Provide for recreational use of wilderness to the extent that it does not degrade the values for which wilderness areas are established.

Piaute Cutthroat Trout will have the highest priority in Silver King, Coyote Valley, and Corral Valley and will be managed to provide for recovery. All conflicts will be mitigated.

Management Prescription

Wilderness	135.1 M Acres

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREAS 5

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
CULTURAL RESOURCES	A02 A03	(A)	Inventory and evaluation will be conducted prior to alteration or removal of any historical structures.
RECREATION	A01	(D)	Determine adequacy of each trail system within the Wilderness for meeting objectives by 1989.
RECREATION	A10	(D)	Relocate and reconstruct trails that are causing adverse impacts on the social and physical resources of wilderness. Rehabilitate abandoned trails by 1995.
RECREATION	A10	(A)	Relocate and/or reconstruct the following trails: Hoover Wilderness - - Reroute the Molybdenite Trail around the meadows located on second and third miles of the trail leading to the wilderness boundary by 1995. - Remove the unsafe log bridge at the second stream crossing above Barney Lake and replace with another log bridge by 1994. - Rebuild the last portion of trail leading to Barney Lake and the Peeler Lake Trail junction by 1993. - Improve the section of trail leading to Burro Pass by 1992.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREAS 5

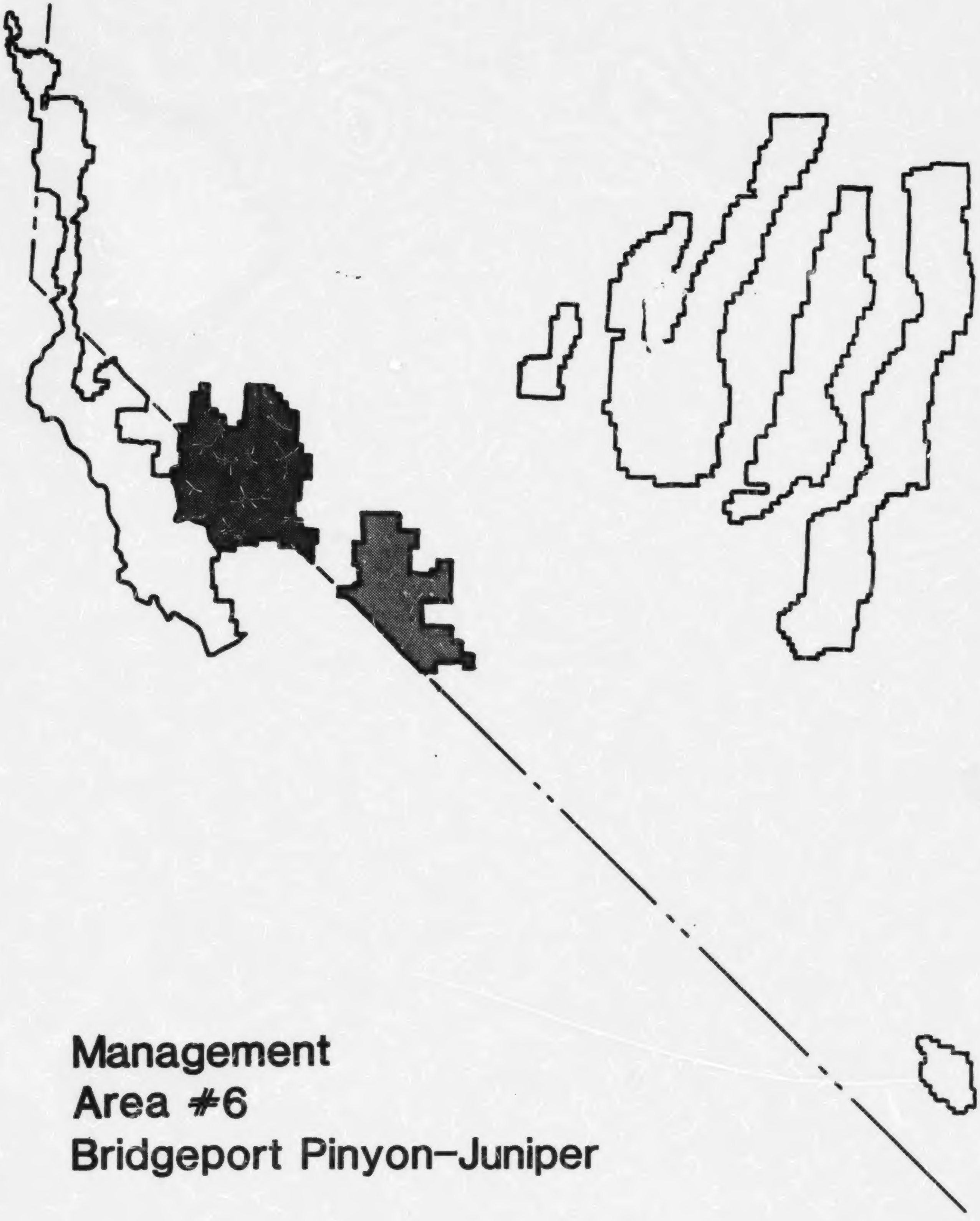
PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
			- Construct some dry crossings on the Summit Lake trail by 1992. - Construct Trailhead at Virginia lake. Carson Iceberg - - Relocate trail no. 017 along the east side of Long Valley where it crosses a wet meadow by 1988. - Relocate and reconstruct the steep portion of trail no. 020 from the ridgetop between Corral Valley and Coyote Valley down to Coyote Valley by 1988. - Relocate and reconstruct the steep and wet meadow portions of trail no. 020 from the ridge top between Coyote Valley and Upper Fish Valley down to Upper Fish Valley by 1988. - Relocate and reconstruct the steep trail from Lower Fish Valley to Tamarack Lake by 1990.
WILDERNESS	B03	(D)	Limit party size and stock numbers so wilderness values and ecological conditions are not degraded if carrying capacity studies show degradation is occurring.
WILDLIFE	C01	(D)	Maintain and improve Paiute Cutthroat trout habitat in Silver King, Coyote Valley, and Corral Valley. Piaute Cutthroat Trout will have the highest priority in these areas and will be managed to provide for recovery. All conflicts will be mitigated.
WILDLIFE	C01	(D)	Provide for the reintroduction of California Big Horn Sheep and peregrine falcon.
RANGE	D01	(A)	Complete 1 initial plan and update 6 plans.
RANGE	D06	(A)	Complete 17 new range structural improvements that meet criteria of protecting or maintaining wilderness values.
RANGE	D07	(D)	Administer and manage 6 grazing allotments, complete examinations on 6 allotments annually.
RANGE	D07	(D)	Manage the range resouce in accordance with FSM 2323.2 (Conference Report) 9/82.
RANGE	D07	(D)	Permit motorized access and uses to permit livestock management in the Wolf Creek drainage that existed prior to wilderness designation and in accordance with direction in the 1984 California Wilderness Act. The extent and approval of this use will be identified in the appropriate Range Allotment Management Plans.
RANGE	D07	(D)	Continue the administrative grazing closure of the identified allotments to protect soil and water

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREAS 5

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
SOIL & WATER	F03	(D)	Implement measures to protect and rehabilitate streams and lakesides that have been adversely affected by human use.
SOIL AND WATER	F03	(D)	Place restrictions (within Hoover) on camping activities within 100 feet of streams and lakes. Within this 100 foot restricted zone, advise all visitors that no camping may occur within 25 feet of lakes and streams.
SPECIAL USES	J01	(D)	Limit outfitter and guide permits commensurate with wilderness values.
LAND	J01	(D)	Phase out Wolf Creek and Poison Flat snow survey improvements in the Carson Iceberg Wilderness.
FACILITIES	L25	(D)	Maintain the Soda Spring Administration Site as an improvement necessary for the administration of the Carson-Iceberg Wilderness. Transfer the Connell's cow camp improvements to range permittee and California Department of Fish and Game for maintenance.
FACILITIES	L28	(D)	Motorized equipment such as chain saws, power drills, and helicoptors may be used as necessary to maintain the Dams at Green, East, and West Lake. Tractors are not authorized.
FACILITIES RECREATION	L12 A11	(A)	Coordinate Sign Planning Management in the Hoover with the Inyo, Stanislaus and Yosemite National Park; the Carson-Iceberg with the Stanislaus and the Mokelumne with the Eldorado and Stanislaus.
PROTECTION	P01	(D)	Prepare fire management action plans for Carson Iceberg and Mokelumne in coordination with the Pacific Southwest Region.

PROBABLE ACTIVITIES FOR THE SECOND DECADE

RANGE	D01	(A)	Complete 1 initial plan and update 6 plans.
RANGE	D06	(A)	Complete 17 new structural improvement.
RANGE	D07	(D)	Administer and manage 6 grazing allotments, complete examinations on 6 allotments annually.



Management
Area #6
Bridgeport Pinyon-Juniper

126

MANAGEMENT AREA 6

Total acreage: 605.4 M net acres

The Bridgeport Pinyon-Juniper Management Area includes all the National Forest lands east of US 395 in Mono County California, Lyon and Mineral Counties, Nevada. The area includes the spectacular Sweetwater Mountains, and the rolling Pine Grove Hills, the Bodie Hills, Wassuk Range east of Hawthorne, and the Excelsior Range east of Mono Lake. Although there are scattered pockets of lodgepole pine, Jeffrey pine and aspen on the Sweetwaters, the dominent species is pinyon pine. The Management Area has a rich history of mining and exploration and development is active throughout the area. Much of the pinyon pine was cut before 1900 in support of the early day mining operations. Historic mining camps in the general area included China Camp, Masonic, Belfort/Boulder Flat, Pine Grove, Silverado, and Rockland. The area supports two wild horse herds, Mount Hicks and Montgomary Pass wildhorse and burro territories. Much of the area is grazed by either cattle or sheep, mostly as spring-fall transition range. Range productivity is generally low except for higher elevation sites. The area supports a small antelope herd and provides key winter range for the West and East Walker deer herds. Recreation use is light and dispersed throughout the area. Fuelwood gathering is a major activity in the area. There are two small campgrounds in the area. The Management Area includes two special areas, the Sweetwater Research Natural Area (RNA) and the East Walker River that has been inventoried as a potential Wild and Scenic River by the National Park Service. This river will be studied for its eligibility and suitability as a wild and/or scenic river by the BLM.

Acreage suitable for timber production: 4,361 acres

TOTAL MANAGEMENT AREA DIRECTION

Management will emphasize the key values of wildlife, dispersed recreation, and wildhorse management in areas with significant wild horse populations.

Uilize the fuelwood program in the pinyon/juniper area to privide for public firewood and to improve wildlife habitat conditions.

Management Prescription

Intensive Wildlife and Dispersed Recreation	405.2 M Acres
Market Emphasis	14.0 M Acres
Wild Horses, Wildlife, and Dispersed Recreation	186.0 M Acres

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PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREAS 6

PRACTICE	MIH CODE	MANAGEMENT DIRECTION (D) OR ACTIVITY (A)	
CULTURAL RESOURCES	A01 A02 A03	(A)	Conduct a systematic sample survey in the Pine Grove Hills and Sweetwaters in correlation with project survey on cordwood sales to aid in the development of management options and evaluation of the resource.
CULTURAL RESOURCES	A01 A02 A03 A04	(A)	Conduct thematic inventory and evaluation of known historic townsites and structures. Nominate as appropriate and develop a management prescription which addresses protection needs for National Register sites as well as the management options available for sites not included in the Register.
CULTURAL RESOURCES	A03 A04	(A)	Complete evaluation and nominate as appropriate the following areas: Mt. Hicks quarries, Rye Grass Spring village, Pole Line Wickiups, NDOT sites, Excelsior Rock Allignments, Gulch Springs vicinity, Borealis vicinity.
RECREATION	A06	(A)	Construct the Bridgeport Visitor Information Center Facility.
RECREATION	A08	(D)	Manage the high elevation portion of the Sweetwater Mountain for semi-private non-motorized recreation objectives except for established road corridors presently open for motorized vehicles and snowmobiles.
RECREATION	A08	(A)	All motorized vehicles except snowmobiles are restricted to designated routes in the Lobdell-Desert Creek area. The area within Burcham Flat is closed to motorized vehicles, including snowmobiles, between Dec. 1 and June 1 annually.
RECREATION	A08	(D)	Manage snowmachine access to eliminate conflicts with wintering big game in Wellington Hills and Burcham Flat.
RECREATION	A14	(D)	Protect the Wild, Scenic and/or Recreational qualities of the East Walker River until the suitability study by the BLM is complete.
RECREATION	A07	(D)	Manage Desert Creek camp ground as a self service campground. Remove units that are excess to demand by 1987.
WILDLIFE	C01	(D)	Restrict vehicle access on big game winter ranges.
WILDLIFE	C01	(D)	Priority for management in Rough Creek will be for antelope and Lahontan Cutthroat trout.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREAS 6

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
WILDLIFE	C02	(D)	The following direction applies to key antelope range in Rough Creek: (1) Antelope will have priority for available forage, and habitat, (2) Fencing will be held to a minimum, and safely designed for antelope use, (3) No new roads will be constructed, (4) Do not allow the conversion of operations from cattle to sheep, and (5) evaluate the Rough Creek area for ORV closure.
RANGE	D01	(A)	Complete 12 new allotment plans and update 12 existing plans.
RANGE	D02	(A)	Complete 92,460 acres of initial analysis and update 202,330 acres of analysis.
RANGE	D03	(A)	Complete 450 acres of initial non-structural improvements.
RANGE	D05	(A)	Complete 18 new strutural improvements.
RANGE	D06	(A)	Complete maintenance of approximately 25 structural improvements yearly.
RANGE	D07	(D)	Encourage conversion from sheep to cattle grazing in Sweetwater Mountains to allow for potential reintroduction of California Bighorn sheep.
RANGE	D07	(D)	Manage the Mount Hicks and Montgomery pass in accordance to the Territory Plans. Coordinate management of Excelsior wildhorse territory with the BLM and Inyo National Forest.
RANGE	D07	(D)	Allow winter cattle grazing on the Wildhorse C&H allotment on the lower elevation pinyon-juniper areas.
RANGE	D07	(D)	Do not develop additional water for domestic livestock west of Alkali Lake.
RANGE	D07	(A)	Administer and manage 25 permits, and 2 wild horse and burro's territories.
RANGE	D07	(A)	The following direction applies to the West Walker Stockdrive way: (1) Confine trailing to road except for rest periods or eliminate trailing, (2) Limit trailing time to two days, and (3) Evaluate if holding corral should be moved away from live water.
TIMBER	E04	(D)	Reforestation as needed to carry out stand silvicultural prescriptions.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREAS 6

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
TIMBER	E05	(D)	Timber stand improvement as needed to carry out stand silvicultural prescriptions.
TIMBER	E07	(D)	Provide for a continuing supply of fuelwood (green and down pinyon) and Christmas trees through commercial and personal program. Provide a continuing source of pine nuts made available through both the personal and commercial programs.
SOIL & WATER	F03	(A)	Complete 5 acres of improvements.
SOIL, WATER	F07	(A)	Process 4 claims for water rights.
SPECIAL USES	J01	(D)	The bomb disposal special use currently used by the U.S. Army is not compatible with public use and should be phased out.
PROTECTION	P01	(D)	Maintain state of preparedness to volcanic activity in the Long Valley Caldera as outlined in the Contingency Plan and future state emergency response plans.
FACILITIES	L09	(A)	Reconstruct 3.7 miles of collector roads.

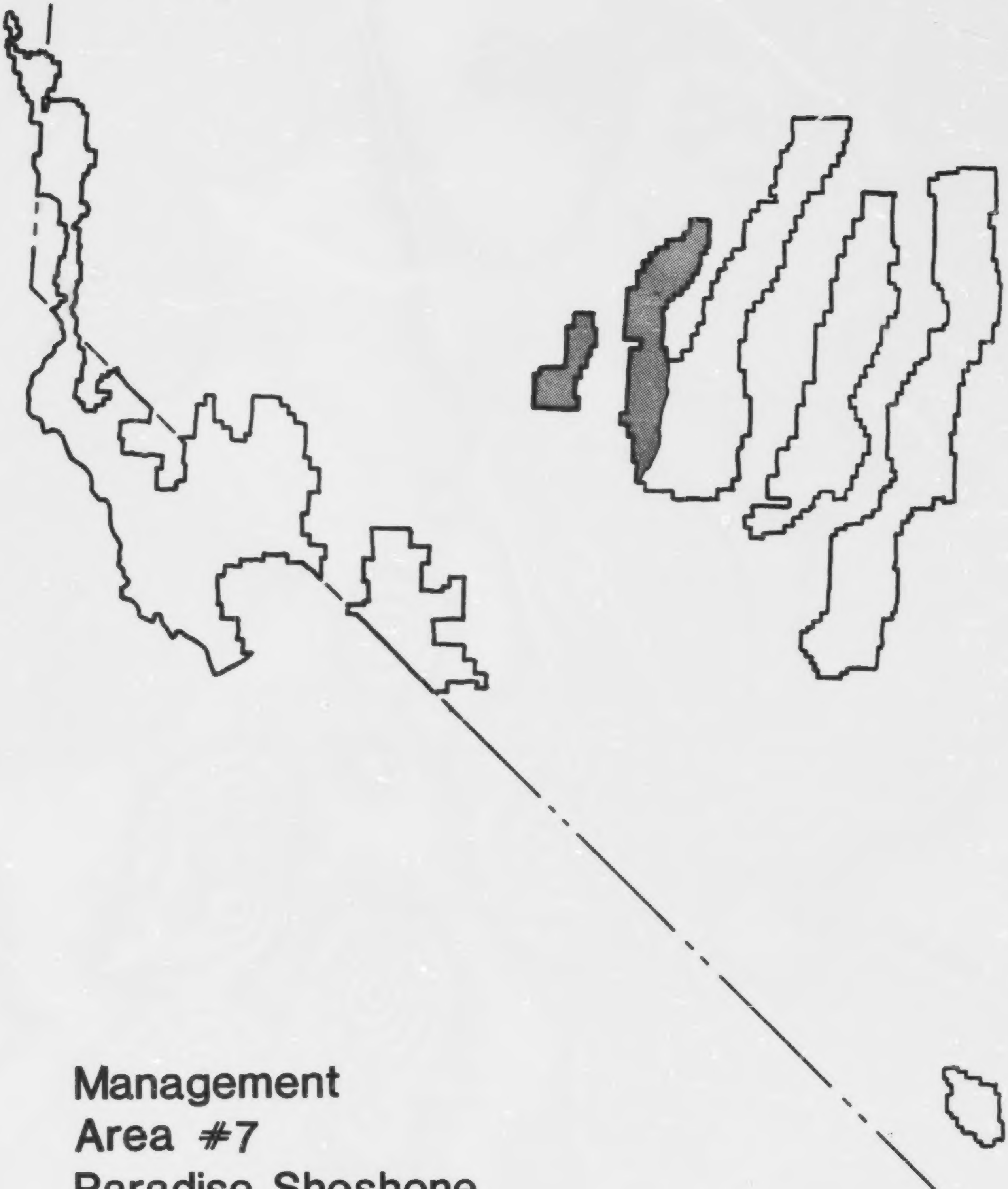
PROBABLE ACTIVITIES FOR THE SECOND DECADE

RANGE	D01	(A)	Complete 12 new allotment plans and update 12 existing plans.
RANGE	D02	(A)	Complete 92,460 acres of initial analysis and update 202,330 acres of analysis.
RANGE	D03	(A)	Complete 450 acres of initial non-structural improvements.
RANGE	D05	(A)	Complete 18 new strutural improvements.

STANDARDS AND GUIDELINES FOR WILD AND SCENIC RIVERS
Prescriptions By Resource and Activity
(National Forest Lands within 1/4 mile of each streams)
East Walker River

Potential River Classes	Timber Management	Water Development F & R C Projects	Mining	Other Development
Wild	No commercial timber removed. Cutting limited to removal incidental to primitive recreation such as trail management.	Dams and diversions prohibited. Unobtrusive removal of water for livestock and wildlife may be permitted.	Leasing not recommended. Common varieties will not be sold. Minerals management will be subject to ED.	New developments will be located outside river area environment (generally 1/4 mile).

* Formal eligibility study to be completed by the BLM. Until the eligibility study is completed, the river will be managed as a possible wild river as stated above to provide interim protection.



Management
Area #7
Paradise Shoshone

MANAGEMENT AREA 7

Total acreage: 267.8 M net acres

The Paradise-Shoshone Management Area includes the Paradise and Shoshone Ranges. Part of the area is administered by the Austin Ranger District and part by the Tonopah Ranger District. There are extensive areas of foothill land in the Cloverdale, Reese River-Indian Creek area and near Gabbs. There is an extensive area of high elevation land on the north end of the Shoshone Range with Shoshone Peak being a prominent landmark. Reese River, Peterson Creek, Indian Creek, and Cloverdale are important streams in the area. The vegetation varies greatly depending upon elevation. The lower country has sagebrush with extensive stands of pinyon pine, particularly on the alluvial fans. There are areas with mountain brush and at the highest elevation aspen is found in scattered pockets surrounded by large sagebrush parks. Small meadows are common with major canyon bottoms. A significant mule deer population is maintained in the area along with scattered populations of chukar partridge, sage grouse, and blue grouse. Reese River, Indian Creek, and Cloverdale Creek all support fisheries. Domestic livestock grazing occurs throughout, and the area supports three established wild horse territories. Mining has been an important activity historically as testified by the old mining towns of Ione, Berlin, Grantsville, Gold Park, Ellsworth, and Gabbs. Results of past minerals operations have left numerous unreclaimed roads, pits, trenches, etc. Gabbs has remained active over the years and the other mines are continually being reviewed in light of today's technology. An area of special interest is the Berlin-Ichthyosaur State Park, under special use permit to the Nevada State Department of Parks, which has been designated by the USDI as a National Natural Landmark. Other recreation uses include primitive camping and visiting the "ghost towns" within the Management Area.

Acreage suitable for timber production: 0 acres

TOTAL MANAGEMENT AREA DIRECTION

To provide for the orderly exploration and development of key mineral resources in a manner that minimizes effects on range, wildlife, and recreation values. Reclamation plans for new operations will also address repair of previously disturbed areas.

Manage the pinyon-juniper woodlands with emphasis on the firewood program to meet a variety of resource objectives.

Maintain and improve key habitats through management of livestock and wild horses. Maintain the Shoshone wild horses herd at a level which will protect wildlife, and range conditions while meeting legal requirements. Green fuelwood areas will be established to improve wildlife habitat.

Soil productivity is expected to continue to be impacted due to the extensive amount of mineral exploration and development expected to occur. Water quality should not significantly be impacted.

Management Prescription

Intensive wildlife and dispersed recreation	173.4 M acres
Stewardship wildlife, range and recreation	87.0 M acres

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 7

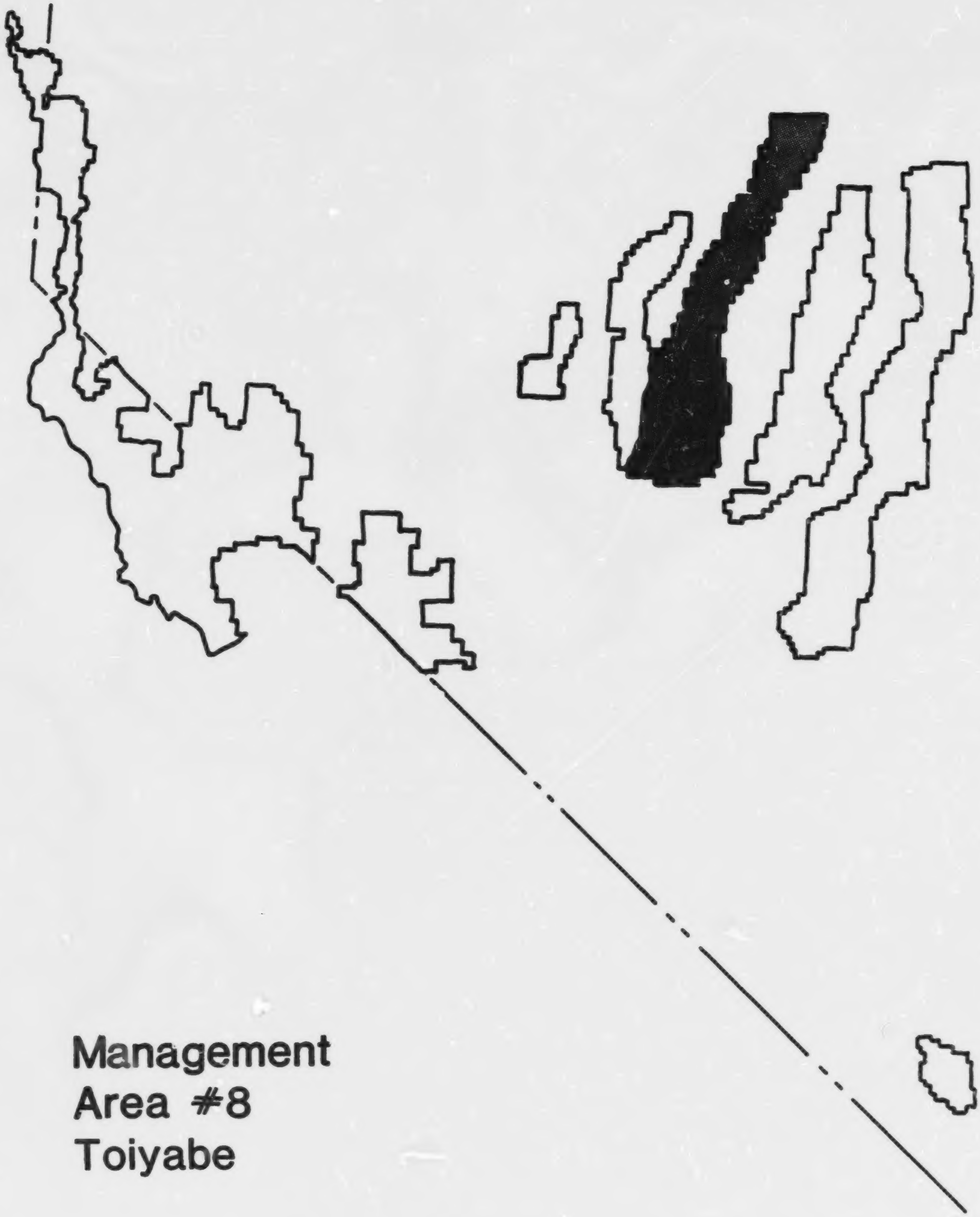
PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
CULTURAL RESOURCES	A01 A02 A03 A04	(A)	Conduct thematic inventory and evaluation of known historic town sites and structures. Nominate as appropriate and develop a management plan which addresses protection and interpretation needs for National Register sites as well as the management options available for sites not included in the Register.
CULTURAL RESOURCES	A02 A03	(A)	In the following areas, known unevaluated sites will be relocated and evaluated: Horse Canyon, Indian Valley, Cloverdale Creek, Golden Wash, Elkhorn Canyon, Becker Canyon, Bonita Canyon.
RECREATION	A14	(D)	Strive to maintain existing visual quality along the Cloverdale-Reese River road, State Highway 21, Elkhorn road corridor and State Highway 91 for partial retention.
WILDLIFE	C02 C03	(D)	Manage the Devils Gate mule deer winter/spring range to avoid adverse impacts.
WILDLIFE	C02 C03	(D)	Manage Indian Valley for upland game habitat.
WILDLIFE	C01 C01 C03	(A)	Complete 114 structural habitat improvments and 3767 acres of non-structural habitat improvements.
RANGE	D01	(D)	Evaluate the vacant Ellsworth and Paradise wild horse territories, and if restocking is appropriate, maintain populations at a level that will protect range conditions and meet legal requirements.
RANGE	D01	(D)	Coordinate range management with the BLM on the South Shosne C&H allotment.
RANGE	D01	(A)	Complete update 4 range allotment plans.
RANGE	D02	(A)	Update 217,900 acres of range allotment analysis.
RANGE	D03	(A)	Complete 900 acres of initial nonstructural improvements.
RANGE	D05	(A)	Complete 66 new structural improvements.
RANGE	D07	(A)	Administer and manage 4 allotments, and 3 territories.
RANGE	D12	(A)	Complete control on 160 acres of noxious farm weeds.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 7

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
TIMBER	E07	(D)	Coordinate any fuelwood harvest and commercial sales of pinenuts with the Yomba Tribe within previously identified traditional areas.
WATER RIGHTS	F07	(A)	Process 6 water claims for water rights.
LANDS	J11	(D)	Exchange Ichthyosaur State Park with the State of Nevada.

PROBABLE ACTIVITIES FOR THE SECOND DECADE

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
RANGE	D01	(A)	Complete update of 4 range allotment plans.
RANGE	D02	(A)	Update 217,900 acres of range allotment analysis.
RANGE	D03	(A)	Complete 900 acres of initial nonstructural improvements.
RANGE	D05	(A)	Complete 66 new structural improvements.
RANGE	D07	(A)	Administer and manage 4 allotments, and 3 territories.
RANGE	D12	(A)	Complete control on 160 acres of noxious farm weeds.



Management Area #8 Toiyabe

MANAGEMENT AREA 8

Total acreage: 541.0 M net acres

The Toiyabe Management Area lies entirely within the Toiyabe Range and includes lands administered both by the Austin and Tonopah Ranger Districts. The area extends the length of the Toiyabe Range from Cottonwood and Peavine Canyons in the south to the Forest boundary, north of Austin. The Toiyabe Range is a sharp, "spinelike" mountain range running on a north-south axis, with sharp, steep, descending canyons dropping off this narrow divide, both to the east and west. The slopes are generally very steep as the land breaks off sharply to Smoky Valley on the east and Reese River Valley to the west. This is a rugged range with limited access because of the terrain. Most of the canyons have running streams at least for part of the year. Much of the main ridge is close to 10,000 feet in elevation with several peaks over 10,000 feet. Arc Dome, French, Bunker Hill, and the Toiyabe Peaks are all prominent. The range north of US Highway 50 changes, with more rolling terrain. The vegetation varies greatly and includes extensive areas of sagebrush and pinyon-juniper, mountain brush, and at the higher elevations pockets of Limber pine and aspen. The area has large rock outcrops containing virtually no vegetation. Wildlife values are high as the area supports significant populations of mule deer, chukar partridge, blue grouse and sage grouse. Many of the streams support populations of rainbow, Lahontan cutthroat, brook, and/or brown trout. The streams along the west side of the range historically contained Lahontan cutthroat and a recovery program has been initiated with the Nevada Department of Wildlife and USDI Fish and Wildlife Service. The area is traditional home to the desert bighorn sheep from Arc Dome to Bunker Hill, however, they currently occupy the southern portion of the range. Small herds of elk have been sighted in the management area. Livestock grazing occurs throughout the area and there are two wildhorse territories. Kingston, Big Creek, Peavine, and Bob Scott campgrounds along with San Juan Canyon, Stewart, Washington, South Twin, Reese River and Birch Creek receive the heaviest recreation use. A point of interest are remnants of the original Pony Express Trail. Also, an area of special interest are the Wild Granities, which has been designated by the USDI as a National Nature Landmark. Other uses of the area include a municipal watershed near the town of Austin, a utility corridor north of US 50, and electronic sites near Tonopah, Austin and on Bunker Hill. Six important administrative work sites; Reese River, Kingston, Stone Cabin, Peavine, San Juan, Smoky Valley, and Little Meadow on Clover Creek serve the area. Mining activity has increased over the past 10 years. Activity occurring in excessively steep areas is causing serious conflicts in developing the mineral resource while protecting downstream water quality, livestock use, and protecting the recreation/visual resource. The area includes the proposed Arc Dome Wildnerness.

Acres suitable for timber production: 0 acres

TOTAL MANAGEMENT AREA DIRECTION

Key values of livestock grazing and the development of minerals will be done in the manner that protects the dispersed recreation, wildlife and fisheries resources of the area.

Manage the pinyon-juniper woodlands with emphasis in the fuelwood program to meet a variety of resource objectives.

Aspen habitats will be managed to maintain stand vigor and to improve stand density and age class distribution.

Management of the area's wildlife and fisheries resources will continue with the emphasis given to the recovery plan for the Lahontan cutthroat trout and to the desert bighorn sheep. Habitat improvement projects will be initiated on key deer winter ranges and riparian habitats will be improved through protection and habitat improvement. Green fuelwood areas will be established to improve wildlife habitat.

The four developed campgrounds in the Management Area will continue to be maintained with Kingston, Big Creek and Bob Scott managed as fee sites. Peavine will be managed with emphasis on user clean-up and maintenance. The Toiyabe National Recreation Trail will receive maintenance emphasis with maintenance at a level that will provide for a safe and enjoyable recreation experience. Protect water sources along the Toiyabe Crest Trail from livestock.

Manage the proposed Arc Dome Wilderness to meet the objectives and intent of the Wilderness Act.

Management Prescription

Wilderness	94.4 M Acres
Intensive wildlife and dispersed recreation	441.5 M Acres
Market opportunities	5.1 M Acres

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREAS 8

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
CULTURAL RESOURCES	A03 A04	(A)	Protect the Ophir townsite from any disturbing activity, and evaluate for nomination to the National Register of Historic Places.
CULTURAL RESOURCES	A03 A04	(A)	Evaluate for nomination the prehistoric resources in the vicinity of San Juan, Washington, and Cottonwood Creeks which were previously investigated by the American Museum of Natural History.
CULTURAL RESOURCES	A01 A02 A03 A04	(A)	Conduct a thematic inventory and evaluation of known historic townsites and structures. Nominate as appropriate and develop a management plan which addresses protection and interpretation needs for National Register sites as well as management options available for sites not included in the Register.

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PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 8

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
CULTURAL RESOURCES	A02 A03	(A)	In the following areas, known unevaluated sites will be relocated and evaluated: Mohawk Canyon, New York Canyon, Midas Canyon, Emigrant Canyon, Box Spring, Simpson Park Canyon, Jett Canyon, Summit Canyon, North and South Twin Canyons, Wall Canyon, Cove Canyon, Upper and Lower Corral Canyon, Kingston Mine, Big Creek, Knox Creek, Dry Creek, Indian Ranch Cemetary.
CULTURAL RESOURCES	A03 A04	(A)	Evaluate for nomination La Plata Mill.
RECREATION	A05	(A)	Rehabilitate and/or add a water system at Big Creek, Bob Scott, and Kingston by 1989.
RECREATION	A08	(D)	Manage the Toiyabe Crest from Ophir Creek north to the Kingston-Big Creek road corridor to meet a recreation objective of semi-primitive non-motorized.
RECREATION	A08	(A)	Continue the restriction of all motorized vehicles, except snowmobiles, to designated routes along the Toiyabe Crest from Clear Creek north to Porter Creek. Allow only foot and horse travel from March 1 to May 31 in the desert bighorn lambing area in Wall, Pablo and Jett Canyons.
RECREATION	A08	(A)	Manage all developed campgrounds as fee sites and to standard.
RECREATION	A11	(A)	Reconstruct 15 miles of existing trails by 1992.
RECREATION	A12	(D)	Recreation use along the Toiyabe Crest will be regulated if necessary to protect habitat and solitude requirements of the desert bighorn sheep.
CULTURAL RESOURCES	A12	(D)	Protect the "Pony Express Trail" from any uses or activities that would impact historical values of the Trail.
RECREATION	A14	(D)	Manage the Kingston Canyon Road corridor to meet the visual quality objective of partial retention.
WILDLIFE	C01	(A)	On bighorn lambing areas allow no construction activities until after June 15.
WILDLIFE	C01	(D)	Discourage activities on the point of Rocks winter ranges that will disturb mule deer in the spring and winter.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 8

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
WILDLIFE	C01	(D)	Manage elk in compliance with the Central Nevada Elk management plan.
WILDLIFE	C02 C03	(D)	Give priority to improving habitat of Lahontan cutthoat by improved livestock management and stream habitat improvements.
WILDLIFE	C01 C02 C03	(A)	Complete 100 structrual improvements and 1835 nonstructural improvements.
RANGE	D01	(A)	Complete three initial range allotment plans and update 13 plans.
RANGE	D02	(A)	Complete 256,230 acres of initial range allotment analysis.
RANGE	D03	(A)	Complete 4,000 acres of initial nonstructural improvements.
RANGE	D05	(A)	Complete 120 new structural improvements.
RANGE	D07	(D)	Manage livestock use in the basins along the West Toiyabe Front to reduce livestock use around available water.
RANGE	D07	(A)	Administer and manage 40 grazing allotments, and 2 wild horse territories.
RANGE	D07	(D)	As grazing allotments on the eastside, as far north as Aiken Canyon, become vacant, they should not be restocked.
RANGE	D07	(D)	Maintain the grazing closure to livestock in the area of Pony Canyon.
RANGE	D07	(A)	Fence the U.S. Highway 50 right-of-way as needed to reduce the public hazard from livestock grazing.
RANGE	D12	(A)	Complete control on 780 acres of noxious farm weeds.
TIMBER	E07	(D)	Coordinate any fuelwood harvest and commercial sales of pinenuts with the Yomba Tribe, within previously identified traditional areas.
SOIL & WATER	F03	(A)	Complete 47 acres of improvements.
WATER RIGHTS	F07	(A)	Process 39 claims for water rights.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 8

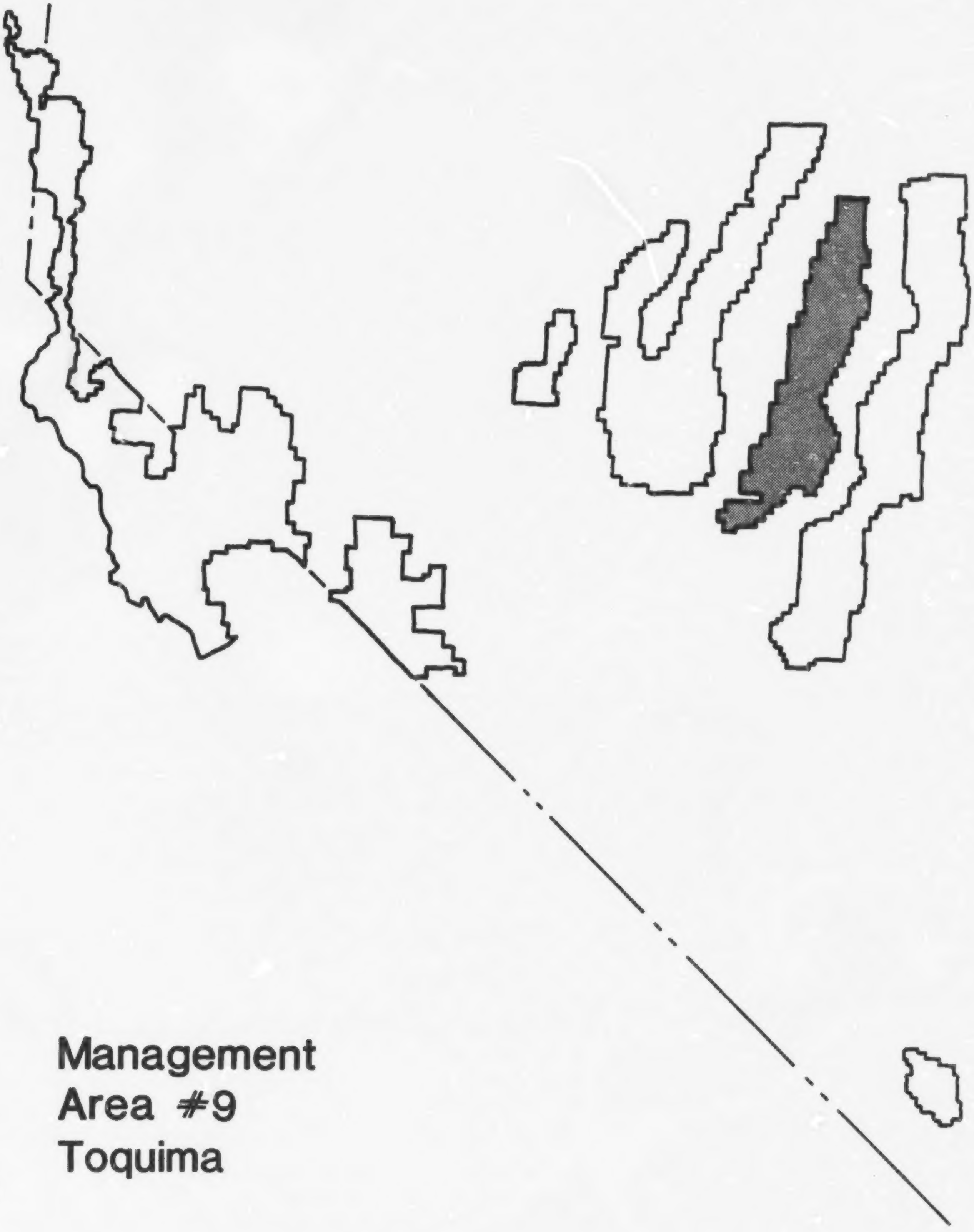
PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
MINERALS	G06	(D)	Allow no surface occupancy within the over steepened escarpment on the Eastside in connection with energy leasing.
LANDS	J11	(D)	Investigate the possibility of aquiring non-National Forest lands in Kingston Canyon.
FACILITIES	L05	(A)	Recnstruct 15.1 miles of arterial roads.
FACILITIES	L09	(A)	Reconstruct 2.6 miles of collecotr roads.
FACILITIES	L42	(D)	Restrict access to the Bunker Hill electronic site to foot, horse or helicopter. Utilize road to the Austin electronic site only during the summer. No snow removal will be permitted.
FACILITIES	L42	(D)	The Reese River, Little Meadows, San Juan, Kingston, Stone Cabin, and Smokey Valley Administrative sites will be retained.

PROBABLE ACTIVITIES FOR THE SECOND DECADE

WILDLIFE	C01 C02 C03	(A)	Complete 100 structrual improvements and 1835 nonstructural improvements.
RANGE	D01	(A)	Complete three initial range allotment plans and update 13 plans.
RANGE	D02	(A)	Complete 256,230 acres of initial range allotment analysis.
RANGE	D03	(A)	Complete 4,000 acres of initial nonstructural improvements.
RANGE	D05	(A)	Complete 120 new structural improvements.

THE FOLLOWING DIRECTION, ACTIVITIES, AND PRACTICES APPLY TO THE RECOMMENDED ARC DOME WILDERNESS.

RECREATION	A08	(D)	Manage the proposed Arc Dome Wilderness to meet a recreation objective of primitive and semi-primitive non-motorized uses.
RECREATION	A08	(A)	The proposed Arc Dome Wilderness is closed to all motorized vehicles.



Management
Area #9
Toquima

MANAGEMENT AREA 9

Total acreage: 535.4 M net acres

The Toquima Management Area includes the entire Toquima Mountain Range on the Austin and Tonopah Ranger Districts. The Toquima Range is a steep, sharply dissected mountain range with numerous rocky canyons dropping off the crest into the Monitor Valley and Smoky Valley. The north end of the Toquimas are not as rugged as the area south of Mount Jefferson. Mount Jefferson at 11,950 feet contains a unique ecosystem and part of the area has been designated a Research Natural Area (RNA). The RNA contains 3490 acres and was established in 1973. This the highest peak in the Management Area. The proposed 31,000 acre Mt. Jefferson wilderness includes Mt. Jefferson and the high table lands immediately adjacent to the peak. The unit is heavily mineralized and includes active mining near the historical sites of Manhattan, Belmont, and Round Mountain. Mining activity is cyclic depending on the market. Recent activity has included recycling the tailings in the Round Mountain area. Discoveries of barite, uranium, and gold near Northumberland Canyon has resulted in three barite mines and one open pit gold mine. Livestock grazing occurs throughout the area and the area supports the Toquima and the Northumberland Wildhorse Territory , and a burro population near Pete Springs. Other areas of interest include Spencer Hot Springs, and five areas of known significant archeological importance; Toquima Cave, Gatecliff Shelter, Triple T shelter, Alta Toquima, and the Northumberland vicinity. Vegetation ranges from sagebrush-grass through a pinyon-juniper woodlands to high elevation basins with Limber pine and small patches of aspen. There are numerous small meadows and riparian areas scattered throughout the area. Deer and sagegrouse are the principal game species although blue grouse and chukars are found. A number of streams support a fisheries and recreation use is lightly dispersed throughout the area.

Acres suitable for timber production: 0 acres

TOTAL MANAGEMENT AREA DIRECTION

Provide for the orderly exploration and development of mineral resources in a manner that minimizes effects on range, wildlife, cultural, and recreation values.

Manage the pinyon-juniper woodlands with emphasis on the fuelwood program to meet a variety of resource objectives.

Maintain and improve key wildlife and fish habitats. Green fuelwood areas will be designed to improve wildlife and grazing habitats. Enhance sagegrouse habitat in Stonberger Basin.

Provide opportunities for a variety of dispersed recreational experiences throughout the Management area.

Cooperate with the American Museum of Natural History to develop an interpretive program for Toquima Cave and Gate Cliff Rock Shelter.

Control noxious farm weeds. New infestations and areas where noxious weeds are spreading will receive first priority for treatment. Maximize livestock production as compatible with other resources and activities. Do not allow conversion from cattle to sheep in the Mount Jefferson area. Close the Mount Jefferson Research Natural Area to livestock grazing.

Manage the proposed Mt. Jefferson Wilderness to meet the objectives and intent of the Wilderness Act.

Relocate and reconstruct the Moores Creek road in a location which will not make the road as susceptible to high intensity storms.

Retain the Meadow Canyon and Stonberger/Corral Canyon administrative sites.

Management Prescriptions

Intensive wildlife and dispersed recreation	377.1 M acres
Stewardship wildlife, range and recreation	27.3 M acres
Wilderness	31.0 M acres

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 9

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
CULTURAL RESOURCES	A01 A02 A03 A04	(A)	Conduct thematic inventory and evaluation of known historical townsites and structures. Nominate as appropriate and develop a management plan which addresses protection and interpretation needs for National Register sites as well as the management options available for sites not included in the Register.
CULTURAL RESOURCES	A02 A03	(A)	In the following areas, known unevaluated sites will be relocated and evaluated: Bald Mt. Wash, area north of South Fork drainage, Triple T Shelter, and slate sites and petroglyphs in Northumberland.
CULTURAL RESOURCES	A04	(A)	Monitor Gatecliff Shelter to ensure continued protection of remaining archaeological values.
CULTURAL RESOURCE	A01 A03 A04	(D)	Complete National Register nomination and management plan for Jefferson City and implement necessary protection/mitigation measures.
CULTURAL RESOURCE	A04 A01	(D)	Develop and implement a plan for public interpretation of the cultural resource values of Toquima Range based on data compiled by the American Museum of Natural History.
RECREATION	A08	(D)	Protect the integrity of the Belmont Cemetery.
RECREATION	A07	(D)	Maintain the Pine Creek Campground with emphasis on user self maintenance.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 9

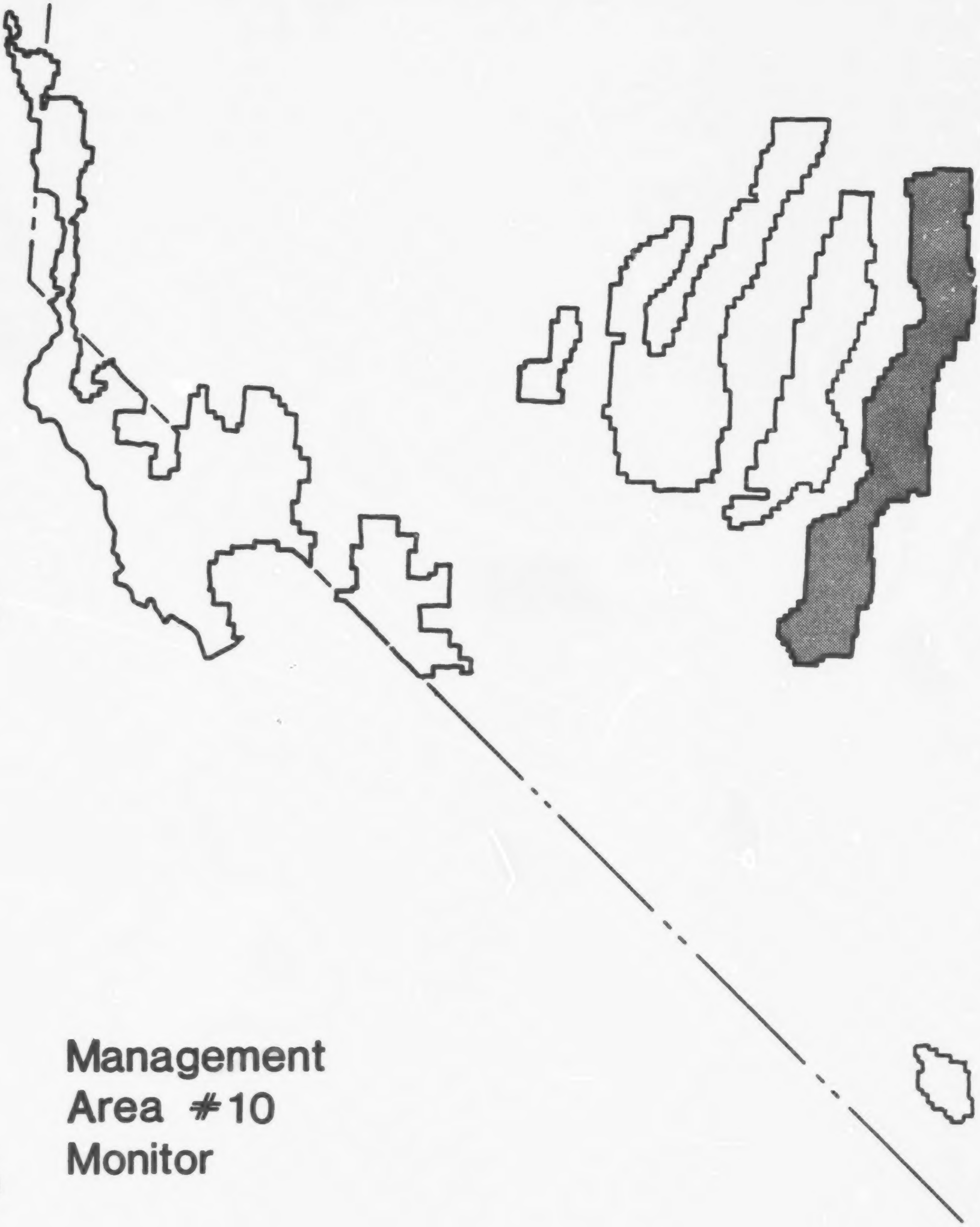
PRACTICE	MIH CODE	MANAGEMENT DIRECTION (D) OR ACTIVITY (A)	
RECREATION	A08	(D)	Manage Stoneburger Basin to meet recreation objectives of semi-primitive non-motorized use, except for established road corridor presently open to motorized vehicles.
RECREATION	A08	(D)	Restrict all motorized vehicles except snowmobiles to designated routes in the Stoneburger Basin area.
WILDLIFE	C01 C02 C03	(A)	Complete 99 structural improvements and 1835 nonstructural improvements.
RANGE	D01	(A)	Complete 4 new range allotment plans and update 10 existing plans.
RANGE	D02	(A)	Complete 86,980 acres of initial range allotment analysis.
RANGE	D03	(A)	Complete 4,100 acres of initial nonstructural improvements.
RANGE	D04	(A)	Complete 1,500 acres of nonstructural improvement maintenance.
RANGE	D05	(A)	Complete 36 new structural improvements.
RANGE	D07	(A)	Administer and manage 9 grazing allotments, and 3 wild horse territories.
RANGE	D12	(A)	Complete control on 100 acres of noxious farm weeds.
SOIL & WATER	F03	(A)	Complete 26 acres of improvement.
WATER RIGHTS	F07	(A)	Process 32 claims for water rights.
FACILITIES	L05	(D)	Relocate and reconstruct the Moores Creek road to a location which will protect the road from high intensity storms.
FACILITIES	L42	(D)	Retain the Meadow Canyon and Stoneberger/Corral Canyon Administrative sites.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 9

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
PROBABLE ACTIVITIES FOR THE SECOND DECADE			
WILDLIFE	C01 C02 C03	(A)	Complete 99 structural improvements and 1835 nonstructural improvements.
RANGE	D01	(A)	Complete 4 new range allotment plans and update 10 existing plans.
RANGE	D02	(A)	Complete 86,980 acres of initial range allotment analysis.
RANGE	D03	(A)	Complete 4,100 acres of initial nonstructural improvements.
RANGE	D04	(A)	Complete 1,500 acres of nonstructural improvement maintenance.
RANGE	D05	(A)	Complete 36 new structural improvements.
RANGE	D07	(A)	Administer and manage 9 grazing allotments, and 3 wild horse territories.
RANGE	D12	(A)	Complete control on 100 acres of noxious farm weeds.
FACILITIES	L05	(A)	Reconstruct 7.9 miles of arterial roads.
THE FOLLOWING DIRECTION, ACTIVITIES, AND PRACTICES APPLY TO THE RECOMMENDED ALTA TOQUIMA WILDERNESS			
RECREATION	A08	(D)	Manage the proposed Mt. Jefferson Wilderness to meet a recreation objective of primitive and semi-primitive non-motorized uses.
RECREATION	A08	(A)	The proposed Mt. Jefferson Wilderness is closed to all motorized vehicles.
CULTURAL RESOURCES	A03	(D)	Complete National Register nomination for the Alta Toquima Archeological District and implement necessary protection measures. Provide stabilization measures, if necessary, to protect site integrity in a manner consistent with wilderness values. Withdraw the area from mineral entry.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 9

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
RANGE	D07	(D)	Do not allow the conversion of sheep to cattle grazing in the Mount Jefferson area. Close the Mount Jefferson Research Area to livestock grazing.
RESEARCH		(D)	Manage and protect the Mt. Jefferson Research Natural Area to meet RNA objectives.



Management
Area #10
Monitor

MANAGEMENT AREA 10

Total acreage: 701.2 M net acres

This Management Area includes the entire Monitor Range within the northern part on the Austin Ranger District and the southern portion on the Tonopah District. The Monitor is a rugged north-south range with elevations varying from 7500 feet in the rolling foothills to 10,461 feet on Summit Mountain. Livestock grazing occurs throughout the area, including 15 cattle allotments. In addition there are 4 wildhorse territories including the South Monitor territory which contains the largest population of wild horses on the Forest. The central and northern portions of the area are relatively high in forage productivity. Vegetative diversity is also good, varying from sagebrush to a variety of grass/brush species, to extensive stands of pinyon-juniper and aspen groves on Table Mountain. Of particular wildlife interest in the area are mule deer, mountain lion, sage grouse and elk. The elk were sucessfully introduced to Table Mountain in 1979. A few creeks support fisheries of rainbow, brook and brown trout. Upper Mosquito Creek supports a population of Lahontan cutthroat trout. Recreation use is primarily hunting although "rockhounding" is a popular activity. Use is generally light except during the hunting season. Past and present mining activity is significant in the area, particularly to the south in the Hannapah-Silver Glance area. Also, mining activity is increasing on the east side of the Table Mountain area. Potential exists for large scale mining operations for low grade disseminated gold deposits. A typical method to extract this type of deposit is through open pit cyanide heap leach process. Two areas of scientific and historic interest are Georges Canyon and McCann Canyon. Other activities and/or land uses in the Monitor Management Area include a BLM repeater site, and five administrative sites.

Acres suitable for timber production: 0 acres

TOTAL MANAGEMENT AREA DIRECTION

Provide for a healthy diverse wildlife habitat with emphasis on deer, elk and upland birds, while also emphasizing livestock grazing. Management will provide for wildhorse needs and orderly exploration and development of mineral resources in a manner that minimizes effects on other resources.

Manage the pinyon-juniper woodlands with emphasis on the fuelwood program to meet a variety of resource objectives.

Maintain and improve key habitats through management of wild horses and livestock. There will be wildlife habitat improvement projects in key areas such as riparian habitat improvement.

Provide opportunities for dispersed recreation throughout the unit. Provide interpretative information on the Georges Canyon Geological Area.

Manage the Monitor wild horse herd cooperatively with the BLM in a manner that provides sufficient forage and water for wildlife, domestic livestock, and maintains soil and vegetation in satisfactory condition. Control noxious farm weeds.

Maximize forage production by maintaining intensive grazing systems.

Manage the elk herd cooperatively with Nevada Department of Wildlife and Bureau of Land Management to provide a recreational and esthetic resource. Management of the herd will be to minimize impacts on the local agricultural community.

Permittees may be granted their proportionate share of increase in grazing capacity that result from development programs to which they have contributed. Additional forage will be used to solve overstocking problems on other allotments and to meet wildlife needs.

Utilize the Table Mountain and South Monitor Allotments as sucessful examples of how livestock grazing can be compatible with wildlife and watershed values.

Management Prescription

Intensive wildlife, range, recreation	469.6 M Acres
Market opportunities	54.0 M Acres
Wild Horses, Wildlife, and Dispersed Recreation	177.6 M Acres

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 10

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
CULTURAL RESOURCES following	A02 A03 A04	(D)	Inventory and/or evaluate, and as appropriate, nominate the cultural resources in the areas: Blackburn Administrative site, Savory Creek, Table Mountain, Hannapah, Georges Canyon.
CULTURAL RESOURCES	A02 A03	(A)	In the following areas, known unevaluated sites will be relocated and evluated: Charcoal kilns and wattle-and-daub structures in North Monitors, Danville and Wagon Johnnies vicinity, area of Cottonwood Administrative site, and McCann Canyon.
CULTURAL RESOURCES	A04	(D)	Continue monitoring/protection of any cultural resources included in the National Register of Historic Places.
RECREATION	A07 A08	(D)	The following management direction applies to the McCann Canyon Geological area: (1) Construct no camping and parking facilities within this area, (2) Develop a self-guided trail, (3) Allow no harvesting of forest products where conflicts could occur.
RECREATION	A08	(D)	Manage the following areas to meet recreation objective of semi-primitive non-motorized: Charnac Basin, Horse Heaven, Butler Basin, Morgan Basin, the McCann Canyon Geological area, and Table Mountain except for established road

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 10

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
			corridors currently open to motorized vehicles as indicated on the annual travel plan.
RECREATION	A08	(A)	Restrict all motorized vehicles, except snowmobiles, to designated routes in the high elevations of Charnac Basin, Morgan Basin, and the McCann Canyon Geological area. The "Table" is closed to all motorized vehicles.
WILDLIFE	C01	(D)	Improve sage grouse habitat throughout the unit with emphasis on Table Mountain, Charnac Basin, Kelly Creek, and Allison Creek Drainages.
WILDLIFE	C01	(D)	Cooperatively manage elk with Nevada Department of Wildlife and BLM in accordance with a cooperatively prepared management plan.
WILDLIFE	C01	(D)	In the South Monitors: (1) Guzzlers constructed for wildlife will be designed to be protected from damage by wildhorses and domestic livestock. (2) Fences will be constructed to allow for the movement of big game animals.
WILDLIFE	C01	(D)	Implement prescriptions to reestablish aspen on suitable sites on Table Mountain.
RANGE	D01	(A)	Complete three new range allotment plans and update eight existing allotment plans.
RANGE	D01	(D)	Design grazing system in Barley Creek to minimize conflicts between grazing and recreation.
RANGE	D02	(A)	Complete 52,000 acreas of initial range allotment analysis and 129,000 acres of updated analysis.
RANGE	D03	(A)	Complete 1700 acres of nonstructural improvements, most of which will include prescribed burning.
RANGE	D04	(A)	Complete 3000 acres of initial nonstructural improvements.
RANGE	D05	(A)	Complete 114 new structural range improvements.
RANGE	D07	(A)	Administer and manage 12 grazing allotments, and 4 wild horse territories.
RANGE	D07	(D)	Resolve conflicts on South Monitor Wildhorse territory between cattle and horses.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 10

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
RANGE	D07	(D)	Eliminate head cutting through meadows by management of livestock and/or installation of head cut structures.
RANGE	D12	(A)	Complete control on 600 acres of noxious farm weeds.
SOIL & WATER	F03	(A)	Complete 68 acres of improvement.
SOIL & WATER	F03	(D)	Rehabilitate roads that exist in the vehicle closure area on Table Mountain. Continue implementation of the Table Mountain Meadow Restoration Plan.
WATER RIGHTS	F07	(A)	Process 46 claims water claims.
MINERALS	G01	(D)	Coordinate activities that may conflict with mineral development the Hannapah-Silver Glance mining district.
LANDS	J01	(D)	Maintain the Bald Mountain electronic site in the South Monitors. Permit no electronic sites on Table Mountain.
FACILITIES	L01	(D)	Relign the White Sage, Dobbin Summit and Charnac Basin Roads to improve public safety.
FACILITIES	L42	(D)	Abandon Cottonwood and Savory Administrative sites. Remove existing structures. Abandon Backburn Guard Station and remove existing structure, except the historical cabin.

PROBABLE ACTIVITIES FOR THE SECOND DECADE

RANGE	D01	(A)	Complete three new range allotment plans and update eight existing allotment plans.
RANGE	D02	(A)	Complete 52,000 acres of initial range allotment analysis and 129,000 acres of updated analysis.
RANGE	D03	(A)	Complete 1700 acres of nonstructural improvements. Most of which will include prescribed burning.
RANGE	D04	(A)	Complete 2200 acres of initial nonstructural improvements.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 10

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
RANGE	D05	(A)	Complete 114 new structural range improvements.
RANGE	D07	(A)	Administer and manage 12 grazing allotments, complete examinations on 12 allotments and 4 wild horse territories annually.

STANDARDS AND GUIDELINES FOR THE MANAGEMENT OF THE MONITOR ELK HERD

MANAGEMENT METHODS

Management methods can be divided into two general categories: habitat management methods and population management methods. Since the Federal agencies have responsibility for management of the habitat, they will take the lead in habitat management. Nevada Department of Wildlife will have primary responsibility for population management.

POPULATION MANAGEMENT METHODS

1. Population numbers, composition and trend will be monitored and documented through the use of annual or biannual aerial surveys using a helicopter. These flights will be considered prior to antler drop and in most years late enough to be able to accurately assess probable herd recruitment. Due to the large size of the Monitor range, monitoring flights cannot be conducted on a random basis. Flights conducted immediately after new snowfall provide optimum conditions for locating and observing elk groups.

   Due to the limitations on helicopter flight time and the potential for bad weather, fixed-wing flights may be used to pre-survey the herd unit when snow conditions are optimum (prior to the arrival of the helicopter). Location of use areas by sign and/or animal sighting could reduce the time in "search mode" and make the best use of limited helicopter flight time during regularly scheduled surveys.

   Other seasonal use areas will be determined by collection and documentation of sightings. During the breeding season, elk bugling techniques may be used to locate elk groups. Areas of suspected but undocumented elk use will be visited. These surveys will be conducted as a joint effort by the cooperators in this plan.

   Herd performance information gathered throughout the year, such as herd composition data and estimated reproduction and mortality rates, will be used to estimate population numbers. Computer population modeling may be used to better understand and demonstrate herd performance.

2. The above-mentioned data gathering methods will be used when and where appropriate to document and monitor elk use incidental to resident herd seasonal use patterns. They will also be used to obtain information in areas of possible satellite herd establishment.

3. The Monitor elk herd, by agreement, will be an intensively managed and controlled herd, one which will not replace other animal use (domestic livestock or indigenous wildlife). Population control will be achieved through sport harvest, which is the primary management tool. Desired levels and composition of harvest will be determined on an annual basis through the Nevada Department of

Wildlife's trophy season-setting process. For the next three years, beginning in 1985, harvest will be set at a level which will successfully limit the elk herd to 300 animals or less. This number includes all elk (cows, calves and bulls) within the Monitor Range and any established satellite herds. The types and dates of hunting seasons will be adjusted annually based on herd and harvest management objectives. These hunts may include harvest of bulls, cows, or calves as appropriate.

If a satellite herd become established and its impacts become unacceptable, management strategies outlined for the Monitor herd, or other strategies deemed necessary to meet agency objectives, will be applied to achieve control or removal of the satellite group.

4. In keeping with the Nevada Department of Wildlife's Policy Plan for the Management of Nevada's Wildlife, management will be aimed towards providing a quality hunting experience and maintaining sufficiently high bull ratios and older age class bulls in the population to promote high hunter selectivity with reasonably high hunter success rates.

HABITAT MANAGEMENT METHODS

A primary objective of this plan is delineation of seasonal elk ranges and key management areas within those ranges. Initial efforts to accomplish this will be centered on the use intensity mapping concept outlined in both Forest Service Handbook 2209.21 and the Nevada Rangeland Monitoring Handbook. Use intensity mapping is a graphic delineation of intensity and distribution of use by grazing animals over an entire management area, such as an elk summer range. Use intensity is determined through observations of grazing use and pellet counts. Because this system results in a general indication of grazing utilization, specific sites will be subjected to Grazing Impact Analysis studies to further refine use levels and species utilized (see FSH 2209.21 for methodology). Pellet and dropping counts will be important in separating elk and livestock use.

Preliminary use intensity maps will be completed annually by the Forest Service and BLM, as funding is available, until the end of 1987. At that time, the information will be evaluated and key management areas will be selected by the interagency committe as sites for long term studies to measure range condition and trend. Where possible, existing range studies will be used to provide this information. New studies will be established by the land management agency with responsibility for the area, with assistance from NDOW as available. A monitoring schedule will be developed and adjusted as new studies are established.

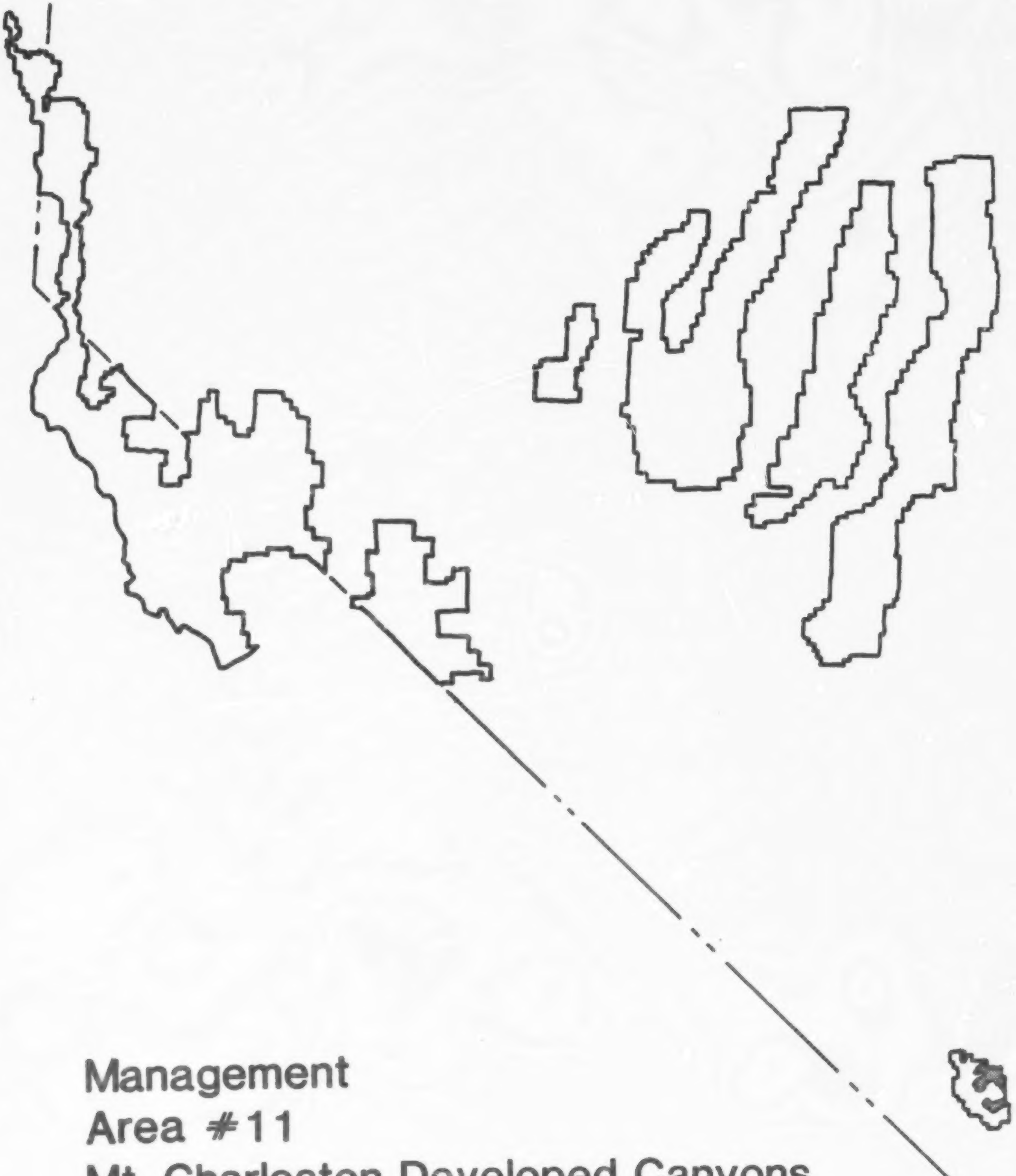
EVALUATION AND REVIEW

This plan will be reviewed and updated in 1988 by an interagency committee. At that time, decisions regarding adjustments in populations numbers will be made using all available study results. Adjustments will be accomplished through increased and decreased harvest levels. That new population increment will be held for a minimum 3-year period, at which time that evaluation will take place. Public involvement will be solicited for that evaluation. If management strategies have been shown ineffective in achievement of goals, then new strategies and methods may be implemented. Prior to that review, the following actions will be taken:

Nevada Department of Wildlife will provide the Forest Service and Bureau of Land Management with its annual condition and trend report containing recent herd composition data, recent harvest figure, habitat condition and rehabilitation actions, herd plan actions implemented and results. The agencies will have the opportunity to provide input to those reports.

Annually, the Forest Service and Bureau of Land Management will assemble study data for inclusion in this plan. Results will be made available to all interest parties.

An interagency committee will meet annually to discuss the plan and evlauate the management methods. This meeting can be arranged to coincide with the annual spring interagency meetings.



Management
Area #11
Mt. Charleston Developed Canyons

MANAGEMENT AREA 11

Total acreage: 13.5 M net acres

The Mount Charleston Developed Canyons Management Area is found on The Las Vegas Ranger District and includes the heavily developed lands in Lee Canyon, Kyle Canyon, and along the Deer Creek Highway. The Management Area is used for both summer and winter recreation. There are ten campground and picnic sites with a capacity of 2500 people at one time. Two organization camps, a ski area, and 25 recreation residences, all authorized by special use permits, provide additional recreational opportunities. Privately owned lands in Kyle and Lee Canyons have been or are being planned for development. A restaurant in Kyle Canyon is the principal public facility on private land, but other commercial businesses are being located at the Forest boundary. The area is a short drive from Las Vegas and the demand for both summer and winter recreation far exceed the available supply. A number of utility lines serve development on both private and National Forest lands. The Management Area is accessed by paved double-lane State highways and the area is used by Las Vegas residents seeking relief from the hot summer temperatures in the valley. The wildfire hazard is an annual concern, particularly with the heavy public use and increasing private land development. Close coordination with the County is necessary to ensure compatible development on private lands. The population of Las Vegas, exceeding 1/2 million people, has no other area within one-half day's drive that provides climatic relief and forest recreation. Acquisition and land adjustments that consolidate public ownership are a high priority. Mount Charleston supports a diverse wildlife population with 52 species, 48 which are considered indigenous to the area.

Acreage suitable for timber production: __0__ acres

TOTAL MANAGEMENT AREA DIRECTION

Manage this area for a variety of high quality public recreational opportunities both summer and winter.

Maintain thrifty stands of ponderosa pine and white fir timber in the canyons. Disease and insect outbreaks are a constant concern in these valuable recreation sites. Apply silvicultural treatments such as salvage harvest, pruning, thinning, and reforestation along with selected chemical treatment of individual trees.

Protect high resource values from fire. Utilize cooperative law enforcement and regulations to provide for public safety and resource protection.

Emphasize management of the variety of sensitive plant species and unique wildlife species on Mount Charleston. Of the 52 species of mammals, many including Palmer's chipmunk are endemic. Habitats will be maintained and improved through development of additional water with emphasis on the endemic sensitive species.

All developed recreation sites will be improved and maintained to standard. Development will be managed to provide both quality and safe recreational experiences. Public use may be constrained to the availability of parking and highway capacity in the near future.

Improvement of highways serving the Management Area will be coordinated with the Nevada State Department of Transportation and Clark County. The Kyle Canyon road may be extended past the private restaurant to provide a return loop for recreation traffic. The administrative sites in Lee and Kyle Canyon will be upgraded at the existing locations.

Soil erosion rate and existing water quality (groundwater) will be maintained at current levels or enhanced.

Management Prescription

Stewardship wildlife, range and recreation 13.5 M acres

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 11

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
RECREATION	A01	(D)	Provide added recreational interest and diversions with planned trails, interpretive walks, and informational signing by 1995.
RECREATION	A01	(D)	Plan informational and interpretative programs for the Kyle Ranger Station 1992.
RECREATION	A01	(D)	Intensify winter recreation management in cooperation with other agencies for patrolling, education, and enforcement in areas of general snowplay.
RECREATION	A01 A08	(D)	Construct no major public developments in Kyle and Lee Canyon or Deer Creek without designed capacities for sewage, water supply, vehicle parking and traffic flow.
CULTURAL RESOURCES	A03 A04	(A)	Evaluate Bonanza sawmill site for historical and interpretive purposes, National Register nomination, and fence if necessary for protection.
CULTURAL RESOURCES	A03 A04	(A)	Evaluate interpretive possibilities for the Kyle Sawmill historical site.
RECREATION	A07	(A)	Manage developed sites as fee sites and to standard.
RECREATION	A07	(D)	Provide for small group camping at McWilliams Camp ground by 1993.
RECREATION	A08	(D)	Utilize management methods to divert public to other areas on days when site capacity is exceeded.

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PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 11

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
RECREATION	A08	(D)	Utilize planned parking along highways and within sites as a control factor to limit both summer and winter use to a designed capacity.
RECREATION	A08	(D)	Continue a "Take-it-Home" public campaign to manage solid waste.
RECREATION	A08	(D)	Provide winter signing that directs tubers and sledders to safe areas by 1986.
RECREATION	A08	(A)	Close Foxtail Canyon, Old Mill, and the Meadows to snowmobiles and all-terrain vehicles or cycles by 1986.
RECREATION	A08	(D)	Discourage winter snowplay in Kyle Canyon.
RECREATION	A10	(D)	Use volunteers to relocate the lower portion of the South Loop Trail if practical by 1996.
RECREATION	A11	(D)	Use volunteers to construct a trail and a trailhead for Mary Jane and Big Falls by 1992.
RECREATION	A11	(D)	Use volunteers to construct an interconnecting trail system with lateral access serving a Spring Mountain Crest Trail.
RECREATION	A12	(D)	Emphasize management and maintenance of the Mount Charleston National Recreational Trail.
RECREATION	A12	(D)	Provide for high quality interpretive trails at Robbers Roost, Desert View, and Bristlecone.
WILDLIFE	C01	(D)	Protect undeveloped water sources for wildlife needs.
WILDLIFE	C01	(A)	Monitor the augmentation of elk with Nevada Department of Wildlife and participate in revising the management plan for the herd.
WILDLIFE	C03	(D)	Enhance wildlife habitat by better water distribution.
RANGE	D07	(D)	Continue efforts to prevent unauthorized livestock from entering the National Forest and take civil or criminal action when appropriate.
VEGETATION	E03	(D)	Manage Forest timber types to provide stand diversity and continued removal of wood products.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 11

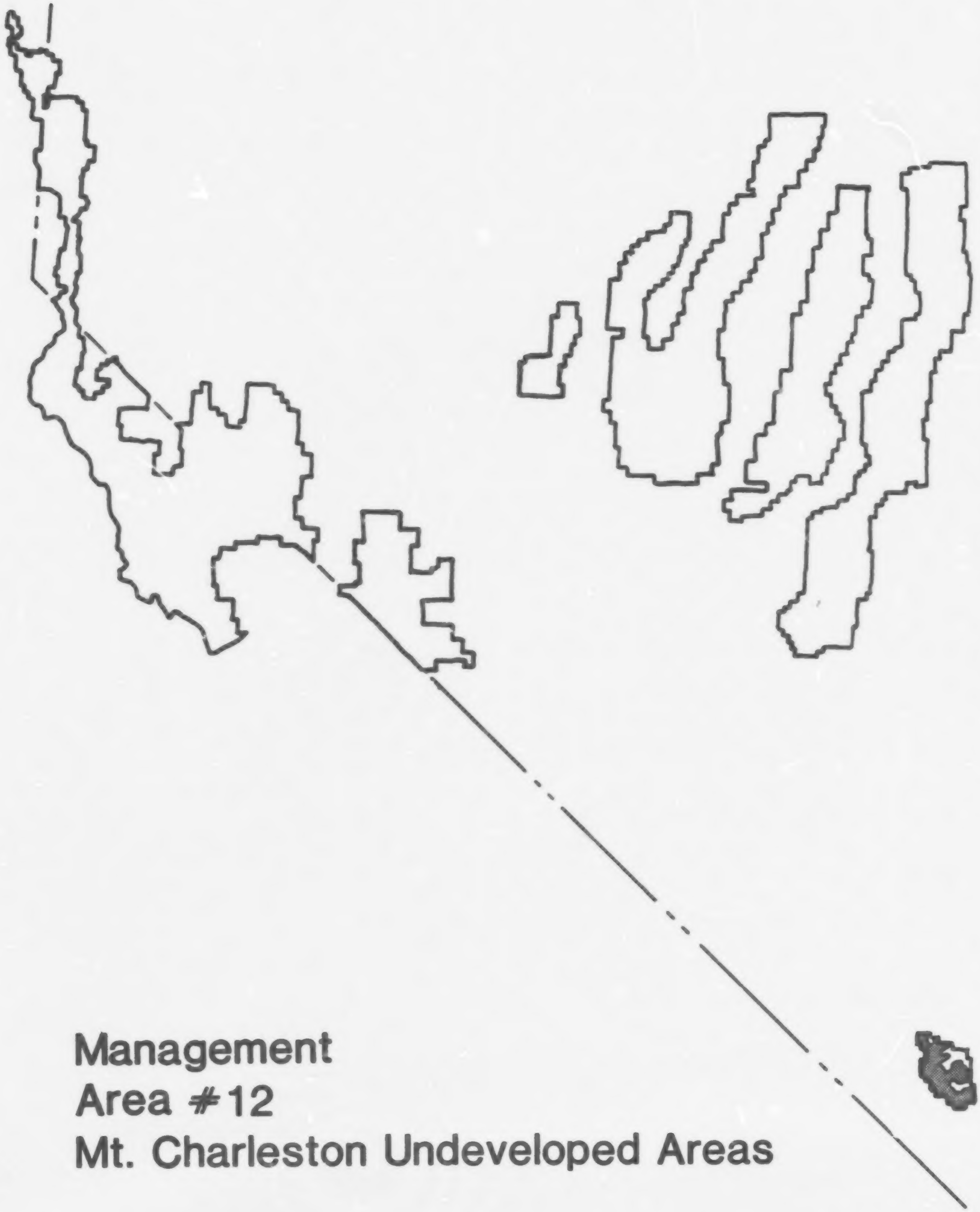
PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
			Develop a vegetation management plan which provides for maintenance of existing diversity, regeneration of ponderosa pine and pinyon/juniper, and removal of wood products.
TIMBER	E07	(D)	Harvest decadent,diseased or insect infested timber where other resource values can be protected and remove trees posing a safety hazard.
SOIL	F02	(A)	Control erosion from the ski area storage compound, County Camp, and Meadows. Assure on-site containment and channel improvements.
SOIL	F04	(D)	Avoid occupancy or soil disturbing activities near major drainage channels.
SPECIAL USES	J01	(A)	Maintain Kyle Canyon weather station in present location for continuity of records.
SPECIAL USES	J01	(D)	Development of the Lee Canyon Ski Area is to be guided by an approved master plan. For the Lee Canyon Ski Area: (1) Cooperate with the Nevada Department of Highways and the ski area to utilize maximum parking on existing pavement. (2) Commercial services will be limited, incidental and subordinate to the primary purpose of winter recreational skiing. (3) Ski area development and lift construction will not be extended for scenic ride opportunities or terminate on the higher ridge lines.
SPECIAL USES	J01	(D)	Development in organization camps are guided by approved master plan. The following direction applies to the management and use of the Organization Camps: (1) Correct current erosion loss from County Camp by on-site retention of runoff. (2) Allow for County Camp expansion for tent camping and day-use activities and confine overnight structures to existing site. (3) Evaluate feasibility of an interconnecting road between organization camps. (4) Protect the snow course from tree removal, encroachment of improvements and oversnow travel which would influence measurements.
SPECIAL USES	J01	(A)	Issue no new recreation residence permits for vacant or relinquished lots. Limit additional improvements to existing residences.
SPECIAL USES	J01	(A)	Administer special uses permits.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 11

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
SPECIAL USES	J01	(D)	Cooperate with Clark County in unified water delivery and sewage systems that will service both public and private development.
SPECIAL USES	J01	(D)	Enter into cooperative agreements for maintenance of the Lee Canyon and Deer Creek water systems.
LANDS	J05	(D)	Cooperate with Clark County to protect undeveloped status of County land in Meadows.
LANDS	J06	(D)	Survey and post, by priority, those landlines most likely to have encroachment.
LANDS	J15	(D)	Place a high priority on a land purchase and exchange program for undeveloped private lands.
LANDS	J15	(D)	Implement, on acquired lands, necessary fire protection and public use management sufficient to protect existing resource values.
PLANNING	J22	(D)	Cooperate with appropriate public agencies, county government, and private landowners to provide ordinances or controls for signing and architecture.
PLANNING	J22	(D)	Work closely with Clark County, State agencies, and private owners on long range planning for solid waste, sewage, fire protection, erosion control, water systems, and ground water quality and esthetics.
FACILITIES	L01	(D)	Evaluate alternative to resolve traffic congestion at dead-end of Kyle Canyon Highway considering a one-way loop.
FACILITIES	L01	(D)	The Forest Service and Nevada Department of Transportation to cooperate on location and design of turnouts, widening for viewpoints, signing, roadside parking, and improvements within highway right-of-ways.
FACILITIES	L01	(D)	Cooperate with the Nevada Department of Transportation and Clark County in retaining Kyle Canyon, Deer Creek and Lee Canyon highways to present widths and control excessive signing.
FACILITIES	L01	(D)	Discourage borrow, sand or gravel pits, and stockpile sites within or adjacent to right-of-ways to avoid conflicts with recreation, scenic and esthetic values.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 11

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
FACILITIES	L25	(A)	Maintain administrative sites in both Kyle and Lee Canyon and provide information and visitor services.
FACILITIES	L25	(D)	Provide for sub-surface collection at the source of Lee Canyon and Deer Creek water systems.
PROTECTION	P01	(D)	Coordinate and cooperate with the Nevada Division of Forestry, BLM, and local agencies in the prevention and suppression of wildfires.
PROTECTION	P12 P13	(D)	Plan for fuel reduction and shaded fuel breaks around developed sites with high fire risks.
PROTECTION		(D)	Notify appropriate citizens, agencies, or media during periods of high hazard for fire, flood, or avalanche.
PROTECTION		(D)	Recognize snow slide or avalanche potential in the location of any new structures or facilities.
PROTECTION	P24	(A)	Law enforcement. Provide for public safety and resource protection.



Management
Area #12
Mt. Charleston Undeveloped Areas

MANAGEMENT AREA 12

Total acreage: 44.5 M net acres

This Management Area is found on Las Vegas Ranger District and consists of the undeveloped areas including the proposed 32,000 acre Mount Charleston Wilderness. The area includes roaded areas in Clark Canyon, Wallace Canyon, the Trough Spring area, and Harris Mountain. The proposed wilderness area includes Willow, Bonanza, McFarland, Charleston and Griffith Peaks, and most of the lands on the western slopes, excluding Clark and Wallace Canyons. Both Clark and Wallace Canyon have potential development sites and Harris Mountain has potential for electronic uses. Vegetation consists of extensive stands of pure bristlecone pine, scattered ponderosa pine-white fir, and pinyon-juniper, and a variety of sensitive plant species. Water is limited to several springs. Private land in Clark Canyon limits public access to some public lands. The Carpenter Canyon Research Natural Area is within the Management Area. The RNA is 2500 acres and contains bristlecone pine, ponderosa pine, and pinyon pine. There are 236 acres of National Forest land located in the southeach boundary and included in the BLM La Madre Mountain Wilderness Recommendations. The BLM studies have been completed and decision by the Secretary of Interior are pending.

Acreage suitable for timber production: 0 acres

Management emphasis within the proposed Mt. Charleston Wilderness will be to meet the objectives and intent of the Wilderness Act.

Lands outside the proposed wilderness will be managed for key wildlife and dispersed recreation values.

Protect the 236 acre portion of the La Madre roadless area until BLM studies and decisions are completed.

Management Prescription

Wilderness	32.0 M Acres
Intensive Wildlife and Dispersal Recreation	12.5 M Acres

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 12

PRACTICE	MIH CODE	MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
THE FOLLOWING APPLIES TO THE MT. CHARLESTON PROPOSES WILDERNESS: 32,000 ACRES		
CULTURAL RESOURCES	A03 (A) A04	Evaluate Log Cabin and Sawmill in Clark Canyon for National Register nomination and potential for interpretation.
RECREATION	A01 (A)	Construct no trail in the Carpenter RNA or McFarland Canyon.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 12

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
RECREATION	A08	(D)	Require refuse and non-organic waste to be removed by recreationists (Pack it in-Pack it out).
RECREATION	A08	(A)	Restrict all motorized and wheeled vehicles.
RECREATION	A10	(D)	Rehabilitate or stabilize abandoned trail segments.
RECREATION	A10 A11	(D)	Locate or relocate trails to minimize impacts on steep slopes and avoid proximity to water sources.
RECREATION	A12	(D)	Sign trails to inform users of restrictions and requirements by 1988.
WILDLIFE	C01	(D)	Manage and protect water sources primarily for wildlife.
WILDLIFE	C03	(D)	Provide undisturbed access for wildlife by requiring overnight camping to be at least 1/8 mile away from water sources or pipe water to new sources where conflicts occur.
RANGE	D07	(D)	Protect National Forest lands from unauthorized livestock grazing.
RANGE	D07	(D)	Protect meadow areas from recreation stock grazing by requiring camping away from meadows and packing pellet feed.
~~TIMBER~~	E07	(D)	~~Cutting, or removal of bristlecone pine or any~~ other species should not be permitted.
RESEARCH	C14 D10 E33 F19	(D)	Manage Carpenter Canyon Research Natural Area in pristine condition and issue permits only for scientific research that utilizes temporary instrumentation. Withdraw the area from mineral entry.
FACILITIES	L42	(D)	Remove Forest Service radio repeater and antennas from Mt. Charleston as soon as technically and economically feasible and allow no additional installations.

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PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 12

THE FOLLOWING SECTION APPLIES TO THE MANAGEMENT AREA WITH DISPERSED RECREATION MANAGEMENT: 12,500 ACRES

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
CULTURAL RESOURCES	A04	(D)	Continue monitoring/protection of any cultural resources, evaluate National Register nomination of log cabin and sawmill in Clark Canyon.
RECREATION	A07	(A)	Complete the North Loop to Lee Canyon segment of the Spring Mountain Crest Trail.
RECREATION	A08	(D)	Require refuse and non-organic waste to be removed by recreationists (Pack it in-Pack it out).
RECREATION	A08	(D)	Restrict all motorized vehicles except snowmobiles to designated routes.
RECREATION	A08	(D)	Relocate trails where necessary to minimize impacts on wildlife, meadows, and springs.
RECREATION	A10	(D)	Rehabilitate or stabilize abandoned trail segments.
RECREATION	A12	(D)	Appropriately sign trail heads to inform users of restrictions and requirements.
WILDLIFE	C01	(D)	Manage water sources primarily for wildlife.
WILDLIFE	C03	(D)	Provide undisturbed access for wildlife by requiring overnight camping to be at least 1/8 mile away from water sources or pipe water to new sources where conflicts occur.
RANGE	D07	(D)	Protect National Forest lands from unauthorized livestock grazing.
RANGE	D07	(D)	Protect meadow areas from recreation stock grazing by requiring camping away from meadows and packing pellet feed.
TIMBER	E03	(D)	Manage forest timber types to provide for stand diversity and continued removal of wood products.
SPECIAL USES	J01	(D)	Remove telephone line special use from Kyle to Lee Canyon as soon as possible.
LANDS	J11	(D)	Acquire undeveloped private lands to enhance public opportunities and protect visual quality.

PROPOSED AND PROBABLE MANAGEMENT PRACTICES FOR MANAGEMENT AREA 12

PRACTICE	MIH CODE		MANAGEMENT DIRECTION (D) OR ACTIVITY (A)
FACILITIES	L01	(D)	Cooperate with Clark County and BLM in all road management programs.
FACILITIES	L19	(D)	Road maintenance in Clark and Wallace Canyon will be the minimum necessary and provide for reducing soil erosion.

THE FOLLOWING DIRECTION, ACTIVITIES, AND PRACTICES APPLY TO THE NATIONAL FOREST PORTION OF THE BLM LA MADRE ROADLESS AREA

WILDERNESS	B03	(D)	Protect the wilderness values of the area untill completion of the BLM studies and recommendation.

IMPLEMENTATION DIRECTION

This Forest Plan provides long-range management direction for the Toiyabe National Forest.

As soon as practicable after the Plan is approved, the Forest Supervisor will ensure that, subject to valid existing rights, all outstanding and future permits and other occupancy and use documents which affect National Forest System lands are consistent with this Plan. The management direction contained in the Forest Plan will be used in analyzing proposals by prospective forest users. All permits, contracts and other instruments for occupancy and use of the Toiyabe National Forest must be consistent with the management requirements in both the Forest and Management Area Direction sections. This is required by 16 USC 1604(i) and 36 CFR 219.10(e).

Subsequent administrative activities affecting the Toiyabe National Forest, including budget proposals, shall be based on the Plan. The Forest Supervisor may change proposed implementation schedules to reflect differences between proposed annual budgets and actual funds received. Schedule changes resulting from the budget appropriation process will be considered an amendment to the Forest Plan. The final annual budget allocation for the Toiyabe National Forest will serve as documentation of the amendment. Changes resulting from the budget appropriation process shall not be considered a significant amendment, and will not require the preparation of an Environmental Impact Statement. Budget changes which, over time, significantly alter the long-term relationships between levels of multiple-use goods and services or result in environmental degradation projected in this Forest Plan, will be evaluated in conjunction with update of the RPA Program every five years and may result in an amendment or revision of the Forest Plan.

Management direction is expressed in terms of both Forest Direction and Management Area Direction. Forest Direction consists of goals, objectives and management requirements which are generally applicable to the entire Forest. Management Area Direction contains management requirements specific to individual areas within the Forest and are applied in addition to the Forest Direction Management Requirements. Management direction responds to public issues, management concerns and opportunities within the availability, suitability and capability of the land and resources.

Implementation of this direction is the key to translating the goals, objectives and management requirements stated in the Forest Plan to results on-the-ground. The Forest Plan is implemented through the program development and budgeting and annual work planning processes. These processes supplement the Forest Plan and make annual adjustments and changes needed to reflect current priorities within overall management direction contained in the Plan.

The Forest Plan provides the management direction for developing multi-year implementation programs. The Plan's scheduled practices, grouped as projects, are translated into multi-year program budget proposals which identify the needed expenditures. These processes complement the Forest Planning process as vehicles for requesting and allocating the funds needed to carry out the planned management direction. The Forest's proposed annual program budget is the basis for requested funding. Upon approval of a final budget for the Forest, the Annual Program of Work is finalized and implemented. The accomplishment of the Annual Program of Work is the incremental implementation of the management direction of the Forest Plan.

Environmental Analysis

Future environmental analyses associated or needed for projects on the Toiyabe National Forest will be tiered to this Forest Plan. Projects and activities within the Forest Plan will be subjected to environmental analysis as they are planned for implementation and will comply with FSM 1950. If the environmental analysis for a project shows that: (1) the management area prescription and standards can be complied with and (2) little or no environmental effect are expected beyond those identified and documented in the Forest Plan, the analysis will result in a categorical exclusion. A decision notice will be used to document the decision. An analysis file and/or project file will be available for public review, but not necessarily in the form of an environmental assessment or environmental impact statement.

Monitoring and Evaluation

The purpose of monitoring and evaluating the implementation of the Forest Plan is to provide the decision-maker with information on the progress toward achieving the goals, objectives and standards.

Monitoring will determine:

-- that the management area direction is applied as directed;

-- that standards are being followed;

-- that the Forest is achieving the objectives of the Plan;

-- that the application of management area direction is responding to the issue topics (planning questions);

-- that the effects of implementing the Plan are occurring as predicted.

Evaluation of the results of the site-specific monitoring programs will be documented in the annual evaluation report. The significance of the results of monitoring programs will be analyzed and evaluated by the Forest Interdisciplinary Team.

Based on the evaluation, any need for further action will be recommended to the Forest Supervisor. These recommendations could include:

-- no action needed: monitoring indicates goals, objectives and standards are achieved;

-- refer recommended action to the appropriate line officer for improvment of application of management area direction;

-- modify the management area direction as a Plan amendment;

-- revise the projected schedule of outputs; or

-- initiate revision of the Plan.

The documented file of the Forest Supervisor's decisions resulting from monitoring and evaluation is maintained for future use in amending or revising the Forest Plan. At least every five years, a Forest Plan evaluation will be completed and an evaluation report submitted with recommended actions to the Forest Supervisor for his consideration.

Monitoring plans for each of the forest resources are detailed in Chapter V of this Forest Plan. These monitoring plans all include the following components:

1. Actions, effects or resources to be monitored -- a specific statement of what will be examined.

2. Intent -- the purpose of the monitoring activity.

3. Expected precision -- the accuracy with which data is collected [precision is qualitatively rated as High (H), Moderate (M) and Low (L)].

   Expected reliability -- a measure of how accurately monitoring reflects the total Forest situation [a qualitative 3-class system is used to rate reliability: High (H), Moderate (M) and Low (L)].

4. Responsibility -- the person who will coordinate the monitoring activity (Line responsibility rests with the Forest Supervisor, the District Rangers and the Forest Management Team. This responsibility may be delegated as necessary).

5. Monitoring technique -- a description of monitoring technique and sources of information to be employed.

6. Frequency -- the schedule of sampling or review stated in years.

   Reporting Time -- the reccurring interval between evaluation reports summarizing monitoring results for a particular monitoring action (item number). Implied is the sampling period needed for specialists to capture significant information. The standard reporting period will be five years unless more frequent reports are necessary. Based on the evaluation reports, the responsible official will make changes in management direction or revise or amend the plan as necessary to meet goals and objectives.

7. Sample size -- the amount of examination needed to provide the level of precision and reliability necessary.

8. Variability (±) which would initiate action -- a statement describing the tolerance limits within which actual performance can vary (deviate) from predicted performance. When these limits are exceeded, further evaluation is triggered. In some cases a standard may be specified. Predicted performance may then be compared with actual performance.

9. Sufficient monitoring of effects of Resource Management Programs to assure protection of soil and water values.

Evaluation

An annual summary of evaluations and recommendations which address the identified monitoring and evaluation requirements will be made.

1. No action needed. Monitoring indicates management direction is being achieved.
2. Clarification of management direction needed. Monitoring indicates that management direction is being improperly applied due to a lack of clarity.
3. Amendment of management direction needed.
4. Evaluation not conclusive, additional study or information needed.
5. Initiate revision of the Forest Plan.

Annual summaries of any revisions will be prepared and incorporated into the Plan as additions. A written evaluation report will be made in 1990 on a five year schedule.

A revision may be initiated if there is:

Recreation

PAOT days of developed recreation are reduced due to site deterioration, off-site resource impacts or public safety, to the extent that significant economic and social hardships occur to communities within the Forest's zone of influence.

Minerals

Managers are no longer able to reasonably administer mining operations that may result in significant unmitigated damage to surface resources in environmentally sensitive areas.

Fire

Cost plus Net Value Change exceeds 25 percent of planned level in protection.

Soil, Water, and Wildlife

When the Forest is no longer able to adequately coordinate and monitor forest activities to insure maintenence of soil productivity, water quality and viable populations.

When the Forest departs in a 5 year period more than 10 percent from the planned objective of 95 percent of the rangelands in satisfactory condition.

Amendments and Revision

The Forest Supervisor may amend the Forest Plan. Based on an analysis of the objectives, guidelines, and other contents of the Forest Plan, the Forest Supervisor will determine whether a proposed amendment is determined to be significant. The Forest Supervisor shall follow the same procedure as that required for development and approval of a Forest Plan. If the change resulting from the amendment is determined not to be significant, the Forest Supervisor will implement the amendment following appropriate public notification and satisfactory completion of NEPA procedures.

Revision

The Forest Plan shall ordinarily be revised on a ten to fifteen year cycle. It may be revised, however, when the Forest Supervisor determines that conditions or demands in the area covered by the Toiyabe National Forest have changed significantly or when changes in RPA policies, goals, or objectives have a significant effect on Forest level programs. It may also be revised when monitoring and evaluation results indicate a need. Revisions are not effective until considered and approved in accordance with the requirements for the development and approval of the Forest Plan.

The following pages, from V-6 through V-15, display the Toiyabe National Forest's Monitoring Plan. The Action Plans can be found from pages V-16 through V-32.

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TOIYABE NATIONAL FOREST'S MONITORING PLAN

ACTIVIVITY, PRACTICE OR EFFECT TO BE MONITORED	INTENT OF MONITORING	EFFECTED PRECISION RELIABILITY	RESPONSIBILITY	MONITORING TECHNIQUE	FREQUENCY OF MEASUREMENT/ REPORTING PERIOD	LEVEL OF MONITORING/ SAMPLE SIZE	VARIABILITY WOULD INITIATE FURTHER EVALUATION
CULTURAL RESOURCES							
Assure surveys and appropriate evaluation and assessment are conducted for all projects which might have the potential to impact cultural resources.	Protect existing cultural resources	HIGH/HIGH	S.O. Staff/ District	Reference search/field work OP, EA, EIS	Continuously /Annual	Forest wide/ Projects	Deviation from standards and guidelines; 20% of project not assessed prior to implementation; destruction of cultural resources; or determination of adverse effect.
Nomination of properties.	Protect existing cultural resources	HIGH/HIGH	S.O.	Reference search	100% sample of Nominations every 5 yrs./5 yrs	Forest wide/ 100% sample of Nominations every 5 years.	No properties nominated.
Monitor existing significant properties to assure no deterioration or destruction occurs.	Protect existing cultural resources	HIGH/HIGH	S.O./District	Field exam	100% sample of significant sites every 2 yrs. /2 yrs.	Forest wide/ 100% sample of significant sites every 2 years.	Identification of potential loss of values which contribute to significance of the property.
FIRE							
Wildfire cost plus net value change	To verify National Fire Analysis	Med/Med	S.O. Staff	Procedure described in FSH 5109.19	Annual		± 10% of total NVC in decade
WILDERNESS							
Limit and distribute visitor use so wilderness resource and values are not impaired.		Moderate/ Moderate			Bi-annual/ 5 year		Downward trend of key sites is established.
Effects of insect and disease outbreaks on wilderness values.		High/Moderate /Moderate			Annual		If outbreaks of epidemic proportions occur.
Effects of fire on wilderness values.		Moderate/ Moderate			Evaluate on a 10 year bases.		Deviations from standards set in Wilderness Fire Management Operational Plan when developed.

ACTIVIVITY, PRACTICE OR EFFECT TO BE MONITORED	INTENT OF MONITORING	EFFECTED PRECISION RELIABILITY	RESPONSIBILITY	MONITORING TECHNIQUE	FREQUENCY OF MEASUREMENT/ REPORTING PERIOD	LEVEL OF MONITORING/ SAMPLE SIZE	VARIABILITY WOULD INITIATE FURTHER EVALUATION
RECREATION							
Visitor information Service and Developed recreation sites.	To determine objective attainment.	High/High	Recreations Staff	PAOT - MAR	Yearly/ Yearly		15% variance at the end of the first 4 years then every 5 years.
Trail Maintenance	To determine Objective attainment	Moderate/ High	Recreation Staff, S.O. and District	Field Exam	Yearly	Forestwide 80% each year	+ or - 20% of total trail miles
ORV Travel Plans	To protect resources	High/High	Recreation Staff, S.O. and Districts	Field Exam	Yearly	Forestwide 80% each year	+ or - 15% of acres in Plan
Wilderness Use	Protect resources	High/High	Recreation Staff, S.O. and Districts	Field Exam	Yearly	All Wildernesses	Use exceeds capacity by 15%
LANDS							
Land Exchange	To determine objective attainment.	High/High	Lands Staff	Acres - MAR	Yearly/ Yearly		15% variance at the end of the first 4 years then every 5 years.
Property Boundary Location	To determine objective attainment.	High/High	Lands Staff	Miles - MAR	Yearly/ Yearly		
TIMBER							
Forest Inventories and yield tables which are used in preparation of harvest levels.	Ensure that strata and inventory used in FORPLAN accurately reflect conditions on the ground.	High/High	S.O./District	Forest Inventory	Once every 10 years/	The inventory will be done each decade and included in the Forplan data base. All stand exam data will also be included in one data base.	15% variation of strata delineation or volume contained in each stata.
Timber Offered	Report all timber products offered on the forest.	High/High	S.O./District	MAR Report	Yearly	All products reported.	25% variance at end of every 5 years.

TIMBER

ACTIVIVITY, PRACTICE OR EFFECT TO BE MONITORED	INTENT OF MONITORING	EFFECTED PRECISION RELIABILITY	RESPONSIBILITY	MONITORING TECHNIQUE	FREQUENCY OF MEASUREMENT/ REPORTING PERIOD	LEVEL OF MONITORING/ SAMPLE SIZE	VARIABILITY WOULD INITIATE FURTHER EVALUATION
Timber Stand Improvement	Ensure proper management of commercial stands.	Moderate/ Moderate	S.O./District	SILVA Report	Yearly	All TSI work is reported.	15% variance at end of every 5 years.
Reforestation	Ensure that harvested stands are regenerated and comply with National standards.	High/High	S.O./District	SILVA Report	Yearly	100% of regenerated stands	15% variance at end of every 5 years.
Insect and Disease Activity	Detect and locate potential problem areas so that controls can begin as soon as possible and determine trends in site condition.	Moderate/ Moderate	S.O./District	Silvicultural exams, aerial, and ground detection surveys. Project work crews.	Yearly	Sample-100% of silvicultural exams. 100% of Sierra zone be flown. Reports from project crews will be needed.	Noticeable increase of insect activity and consultation with FPM.
Evaluate maximum size limits on harvest areas.	To determine if larger regeneration amounts are needed in any management unit.	High/High	S.O./District	SILVA Report	Every 5 years	Sample-100% of regeneration units.	Economic or silvicultural condition indicate a larger size limit necessary.
SOIL							
Soil Quality i.e., potential, productivity, erodibility, fertility, drainage, etc.	Study selected soils having wide occurrence in a survey area. Use this information to guide interpretations for similary soils for which data is not available. Assist with soil classification problems.	High/medium-high	S.O.	1. Establish and intensively study benchmark soils using standard SCS methods.	Continuous/ Annual	Forest wide/ 2 to 6 benchmark soils	NA
	Assist in taxonomic classification and improve soil interpretations.	High/low-med.		2. Standard techniques for monitoring soil moisture and soil temperatures.	Quarterly/ 5 yrs.	Sierras and Central NV/ 10-50 stations	NA

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ACTIVIVITY, PRACTICE OR EFFECT TO BE MONITORED	INTENT OF MONITORING	EFFECTED PRECISION RELIABILITY	SOIL RESPONSIBILITY	MONITORING TECHNIQUE	FREQUENCY OF MEASUREMENT/ REPORTING PERIOD	LEVEL OF MONITORING/ SAMPLE SIZE	VARIABILITY WOULD INITIATE FURTHER EVALUATION
Erosion resulting from Ranage allotment management and silviculture practices.	Determine compliance with Forest Plan MMR required for non degredation of soil productivity.	High/medium-high	S.O.	Transects including photo, erosion pins and other micro topographic monitoring techniques.	1,3,5 yr./ 5 yr.	Sierras and Central NV/ 3-6 projects	Established soil loss tolerance levels exceeded.
Soil productivity in Wilderness campsites.	Determine impact of recreation use on soil productivity and determine trends in site condition.	Medium/Low-medium	S.O.	Erosion/compaction transects and sequential photo points.	Bi-annual/ 5 yr.	Sierra/ 5-15 sites	Downward trend of site is established.
Completed or proposed soil resource improvement projects.	Determine effectiveness of completed soil resource trends for sites identified in watershed improvement needs inventory.	High/low-high	S.O.	Ocular and sequential photo points.	Annual/ Bi-annual	Forestwide/ 2-6 projects	Improvement work not meeting project objectives and/or project effectiveness not maintained. Soil Resource MMR not maintained.
EA's where the soil resource or No. 6 Cont'd site productivity has been identified as being a significant issue.	To ensure that adequate consideration is given to the soil resource during the planning process to prevent identifiable project failure and/ or soil resource degradation.	Medium/Medium	S.O.	Journeyman watershed specialist review all EA's where the soil resource or site productivity has been identified as a significant issue.	Annual/NA	Forestwide/ all EA's where the soil resources or sit productivity has been identified as a significant issue.	Project/activities not meeting soil productivity MMR and/or project success less than predicted.
Management activity/products where soil resource interpretations were key to implementation.	Improve reliability of soil resource interpretations made for soil limitations/management activity relationships.	Medium/ Medium-High	S.O.	Ocular estimates standard soil survey techniques.	Annual/ 3 yr.	Forestwide/ 5-15 projects min of one key project to each reresource area.	Projects/activities not meeting soil productivity MMR and/or project success less than predicted.

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WATER

ACTIVIVITY, PRACTICE OR EFFECT TO BE MONITORED	INTENT OF MONITORING	EFFECTED PRECISION RELIABILITY	RESPONSIBILITY	MONITORING TECHNIQUE	FREQUENCY OF MEASUREMENT/ REPORTING PERIOD	LEVEL OF MONITORING/ SAMPLE SIZE	VARIABILITY WOULD INITIATE FURTHER EVALUATION
BASELINE CONDITIONS							Downward trend is established
Riparian Area, including: 1. Aquatic Ecosystem. a.Streams (forest wide) includes instream flows. b.Lakes (Sierras) 2. Riparian Ecosystem (forest wide). 3. Flood plains (forest wide). Wetlands	Characterized existing conditions to establish a data base for planning. Long term trend assessment, establishment of instream flows needs, refinement of State water quality standards, and evaluating cumulative impacts from multi-resource management. To be coordinated with	Medium/High	S.O.	Standard methods used to classify, monitor, and evaluate riparian area resource conditions inclucing: -chemical, physical and biological constituents in the aquatic ecosystem. -stream regimen -watershed condition of riparian and stream terrestrial zone.	1,3,5,yr/ 5 yr.	Forest wide/ 5 to 15 streams	Downward trend is established or state water quality standards are not met.
Ground water in Kyle and Lee Canyons, Las Vegas R.D.	Trend assessment of ground water quality in area of high potential for ground water pollution.	Medium/ Medium-High	S.O.	Standard water quality from existing wells.	Annual/ Annual	Las Vegas RD 3 to 6 wells	Drinking water standards are exceed or downward trend in quality is established. Soil or water MMR's not met.
PROJECT INDUCED CONDITIONS							
Ripariaan area and watershed runoff conditions resulting from Range allotment management, silvicultural practices, and mineral development activities.	Determine cause and effect relationships designed to meet one or more of the following objectives: Compliance with state water quality standards. Verify attainment of riparian area goals and objectives.	High/Medium High	S.O.	Same a "A" above	Annual/ Annual	Forest wide/ 3 to 8 projects	Soil or water MMR's not met.

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ACTIVIVITY, PRACTICE OR EFFECT TO BE MONITORED	INTENT OF MONITORING	EFFECTED PRECISION RELIABILITY	RESPONSIBILITY	MONITORING TECHNIQUE	FREQUENCY OF MEASUREMENT/ REPORTING PERIOD	LEVEL OF MONITORING/ SAMPLE SIZE	VARIABILITY WOULD INITIATE FURTHER EVALUATION
WATER							
	Measure effectiveness of BMPs.						
Completed or proposed water resource improvement projects.	Determine effectiveness of completed water resource management work and establish trends for sites identified in the watershed improvement inventory.	High/Low-High		Ocular and sequential photo points.	Annual/ Biannual	Forest wide	Improvement work not meeting project objectives and/or project effectiveness not maintained. Soil or water resource MMR's not monitored.
EA's where the water resources or or riparian area has been identified as being a significant issue.	To ensure that adequate consideration is given to the riparian area dependent resources during the planning process in order to prevent project failure and/or resource degradation.	Medium/ Medium		Journeyman watershed specialist review all EA's where the water resources or riparian area has been identified as a significant issue.	Annual/NA	All EA's where the water re-	Project/activities not meeting water resource MMR's and/or project success less than predicted.
Management activity/projects where water resource or riparian area interpretations were key to implementation.	Test and improve predictive techniques. Improve reliability of interpretations made for water and other riparian area dependent resource limitations/management activity relationships/	Medium/ Medium-High		Ocular estimates and standards methods used to monitor and evaluate riparian area resource, stream regimen, and watershed runoff conditions.	Annual/3yr.	Forest wide/ 5-15 projects minimum of one key project in each resource area.	Projects/activities not meeting soil or water resource MMR's and/or project success less than predicted.
RANGE							
Grazing use record	To check for compliance with the grazing permit. To determine the presence of excess animals. To firm up stocking rate.	Moderate/ Moderate	District Ranger	Record of actual use by livestock or wild free-roaming horses or burros.	Annual/ Annual	According to approved AMP or TMP. Check 1/3 allotments not under an AMP. Check each territory not under a TMP at least once.	Numbers change up or down 10% or more

RANGE

ACTIVITY, PRACTICE OR EFFECT TO BE MONITORED	INTENT OF MONITORING	EFFECTED PRECISION RELIABILITY	RESPONSIBILITY	MONITORING TECHNIQUE	FREQUENCY OF MEASUREMENT/ REPORTING PERIOD	LEVEL OF MONITORING/ SAMPLE SIZE	VARIABILITY WOULD INITIATE FURTHER EVALUATION
Distribution and intensity of grazing use.	To identify management problems. To firm-up stocking rate	High/Moderate	District Ranger	Use mapping.	According to approved AMP or TMP/End of grazing cycle or every 5 yrs.	According to approved AMP or TMP.	Uneven grazing use occurs or use intensity is outside of standards.
Key forage plant utilization	To identify management problems. To firm-up stocking rate.	High/Moderate	District Ranger	Grazing impact study	According to approved AMP or TMP/End of grazing cycle or every 5 yrs.	According to approved AMP or TMP.	Proper use standards are not being met.
Weather Information	To determine the effect on forage production. To interpret management effectiveness.	Moderate/ Moderate	District Ranger	General observations of plant growing conditions	Annual for each Ranger District/ Annual for each Ranger District	Observations of seasonal weather patterns on district.	Significant change in weather occurs, e.g. dry, rainy stormy, cold, or hot
Long term trend in range conditions	To determine management effectiveness.	Moderate/ Moderate	District Ranger	Measure change in ecological status and/or resource value	According to approved AMP or TMP/According to approved AMP or TMP	According to approved AMP or TMP.	Ecological status or resource value changes.
Supplemental information such as phenology, ground cover, fire, insects, diseases, rodents, photographs, enclosures and comparison areas.	To help interpret management effectiveness.	Moderate/ Moderate	District Ranger	According to approved AMP or TMP	According to approved AMP or TMP/According to approved AMP or TMP	According to approved AMP or TMP.	A significant event occurs. Information indicates a need for change in managment practices.

Note: AMP = Allotment Management Plan; TMP = Territory Management Plan

MINERALS

Administration of operations	Evaluate compliance to operating plans	Moderate	Districts/ S.O.	Field Exam	60% Sample/ annually	Forestwide/ All plans	Operating plans not meeting project objectives and/or project effectiveness is not maintained

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WILDLIFE

ACTIVIVITY, PRACTICE OR EFFECT TO BE MONITORED	INTENT OF MONITORING	EFFECTED PRECISION RELIABILITY	RESPONSIBILITY	MONITORING TECHNIQUE	FREQUENCY OF MEASUREMENT/ REPORTING PERIOD	LEVEL OF MONITORING/ SAMPLE SIZE	VARIABILITY WOULD INITIATE FURTHER EVALUATION
Goshawk	Monitor and evaluate all Forest activities that effect mature or old growth habitat.	Low/Medium in Sierras	NDOW Districts S.O.	Survey proposed areas. NDOW aerial and ground surveys	As projects proposed/ Check 50% of all known nest sites annually in the Sierras. Use NDOW data for Central Nevada.	Forest Wide	15 % decline
	Maintain Forestwide record of nest sites as they are found. Share data with state wildlife agencies. Use habitat capability profile.	High in Center Nevada		Check known nest sites.	Bi-Annually		
Pine Marten	Monitor and evaluate habitat via biologist analysis of timber sales. Use Habitat capability profile	Medium	District S.O. CFG NDOW	Wildlife surveys in proposed Timber sale areas.	As projects proposed Bi-Annually	Sierran Districts	20% decline
Paiute Cutthroat Trout	Monitor and evaluate Silver King habitat and populations.	High	S.O. District CFG	Habitat(FS) and population (CFG) surveys.	Annually	Site Specific	No decline permissable
	Comply with Recovery Plan goals and objectives						
Lahontan Cutthroat Trout		Medium	NDOW CFG S.O. District	Habitat (FS) & population (NDOW & CFG) Surveys	Annually	Forest Wide	No decline permissable
Macroinvertebrates	Monitor selected aquatic habitats for baseline data and additional selected aquatic habitat for effects by management activities.	Medium	Districts S.O.	Macrionvertebrates analysis	1,3,5, years then every 5 years. To be coordinated with watershed The same stream will be monitored.	Forest Wide 5 to 15 streams	Biotic Condition Index rating of less than current.

WILDLIFE

ACTIVIVITY, PRACTICE OR EFFECT TO BE MONITORED	INTENT OF MONITORING	EFFECTED PRECISION RELIABILITY	RESPONSIBILITY	MONITORING TECHNIQUE	FREQUENCY OF MEASUREMENT/ REPORTING PERIOD	LEVEL OF MONITORING/ SAMPLE SIZE	VARIABILITY WOULD INITIATE FURTHER EVALUATION
Williamson's Sapsucker	Evaluate F.S. activities affecting snags Follow snag management guide.	High	Districts S.O.	Biologist evaluation of timber sales & Fuelwood EA"s and activities.	As projects proposed/ Bi-Annually Macks Canyon (L.V.)	Sieras and Las Vegas	Number of snags per acre below those stated in Toiyabe Snag Policy.
Hairy Woodpecker	Evaluate F.S. activities affecting snags Follow snag management guide and habitat capability profile.	High	Districts S.O.	Biologist evaluation of timber sales and Fuelwood EA's and activities.	As projects proposed Bi-Annually	Forest Wide	Number of snags per acre below those stated in Toiyabe Snag Policy.
Mule Deer	Evaluate F.S. activities affecting deer. Provide state agencies opportunity for input to Forest activities. Use Habitat capability profile.	Medium	NDOW/CFG Districts S.O.	State agency population data	Annually. As projects proposed.	Forest Wide	Data indicating trends not leading to state agency objectives fora consecutive years.
Sage Grouse	Monitor livestock impacting key areas. Establish district record of key areas.	Medium	NDOW/CFG Districts S.O.	NDOW/CFG Surveys FS habitat surveys	Annually	Forest Wide	Sensitive species. Declines not permissable due to habitat alteration or deterioration
Yellow Warbler	Monitor FS activities affecting willow/riparian habitat	Low	District S.O.	F.S. monitor habitat via surveys of suitable riparian habitats.	Annually until adequate base established then	Forest Wide	30% decline
Yellow Warbler Continued					every 3 yrs/ Survey habitats with established populations.		
Palmers Chipmunk	Evaluate and monitor habitat of key areas	Medium	District S.O.	Follow recommendations for management as per Las Vegas District Chipmunk Management Guide.	Annually for first 3 yrs. then every 5 years. Areas identified as high abundance. (McFarland sp., Mary Jane, Deer Creek, Lee Canyon).	Las Vegas	15% decline

WILDLIFE

ACTIVITY, PRACTICE OR EFFECT TO BE MONITORED	INTENT OF MONITORING	EFFECTED PRECISION RELIABILITY	RESPONSIBILITY	MONITORING TECHNIQUE	FREQUENCY OF MEASUREMENT/ REPORTING PERIOD	LEVEL OF MONITORING/ SAMPLE SIZE	VARIABILITY WOULD INITIATE FURTHER EVALUATION
Yellow-bellied Sapsucker	Evaluate F.S. activities affecting snags Follow snag management guidelines.	Medium	District S.O.	F.S. monitor habitat and population of known breeding	Annually for first 3 yrs. then every 5 years. McFarland Canyon, Mazie Canyon, Little Falls	Las Vegas	30% decline
Yellow-rumped Warbler	Evaluate and monitor habitat of key areas.	Medium	District S.O.	F.S. monitor habitat and population of known breeding.	Annually for first 3 yrs. then every 5 years. Montane Forbst.	Las Vegas	30% decline
Sensitive Plant Species	Existing and potential threats to survival	Medium to High	District Ranger	Population and habitat studies	In accordance with status report for species	Forest wide	Decline in population because of habitat alternation or deterioration

TOIYABE NATIONAL FOREST'S ACTION PLANS

MIH Code	Management Practice or Activity	District	FIRE Management Area	Outputs by Year 1986	1987	1988	1989	1990	1991-95
P02	Prepare Hazard/Risk Assess.	1,2,5	1-4,11	X	X	X			
P02	Recommend fire resistant materials for roof coverings.	1,2,5	1-4,11			X	X	X	
P02	Educate purchasers of property of Potential Fire Hazards	1,2,5	1-4,11		X	X	X	X	X
P02	Participating in the development of fire safe guidelines.	1,2,5	1-4,11			X	X	X	
P02	Encourage adoption of Fire Safe Guidelines.	1,2,5	1-4,11				X	X	
P02	Encourage local approving agencies to consider fire hazard potential before approving development.	1,2,5	1-4,11				X	X	X
P02	Develop inter agency public information plan.	1,2,5	1-4,11		X	X	X	X	
P02	Publish Hazard/Risk Maps	1,2,5	1-4,11			X	X		
P02	Develop interagency fire rehabilitation plan.	1,2,5	1-4,11					X	
P02	Develop interagancy prevention plan	1,2,5	1-4,11			X	X	X	
P07	Develop interagency communications plan	1,2,5	1-4,11	X	X	X			
P06	Implement NIIMS	1,2,5	1-4,11	X	X	X	X	X	X
P08	Develop interagency preattack and preplanned dispatch systems	1,2,5	1-4,11		X	X	X	X	
P19	Evaluate feasibility of interagency Air programs	1,2,5	1-4,11		X	X			
P06	Organize interagency fire overhead teams	1,2,5	1-4,11	X	X	X	X	X	X
P07	Evaluate feasibility of interagency fire warehouse.	1,2,5	1-4,11	X	X	X			
P24	Develop inter agency fire investigation process.	1,2,5	1-4,11	X	X	X	X	X	X
P11	Develop intergrated vegetative Mgt. Plan	1,2,5	1-4,11						X
P01	Prepare Fire Management Action Plan for Carson-Iceberg Wilderness	1	5			X			

SOIL AND WATER IMPROVEMENT

MIH Code	Management Practice or Activity	Unit of Measure	District	Management Area	Outputs by Year 1986	1987	1988	1989	1990	1991-95
F03	Improvement	acres	3	10	17					
			4	9	7					
				10	10					
			3	10		17				
			4	9		7				
				10		10				
			2	4			11			
			3	10			11			
			4	9			12			
			2	4				11		
			3	8				12		
			4	8				11		
			1	2					5	
			2	6					5	
			3	8					12	
			4	8					12	
F03	Improvement (cont.)	acres	1	1						10
				2						10
			2	6						10
				4						10
			3	8						30
				10						35
			4	8						65
F01	Soil and Water Resource Inventory	% of Forest Riparian Area			10	20	20	20	20	10

SOIL AND WATER IMPROVEMENT

MIH Code	Management Practice or Activity	Unit of Measure	District	Management Area	Outputs by Year					
					1986	1987	1988	1989	1990	1991-95
250	Progressive Soil Resource Inventory	Acres	3,4	10	200M	200M				
			3,4	9			200M			
			3,4	8				100M		
			3,4	7				100M		
253	Progressive Water Resource Inventory	Acres	3	10	52M					
			1	2		35M				
			2	6		39M				
			3	7		28M				
			3	8		13M				
			1	3,5			5M			
			2	5			37M			
			2	4			46M			
			3	9			55M			
			2	6				100M		
			5						50M	
			4						50M	
										500M
601	Geologic Inventory	Acres	2			100M		100M		300M
			1				100M		100M	200M

				WILDLIFE	Outputs by Year					
MIH Code	Management Practice or Activity	Unit of Measure	District	Management Area	1986	1987	1988	1989	1990	1991-95
C03	Structures		Carson	1,2,3						
	Water Development	Structures			4	5	6	4	5	25
	Fish/ Stream Improvement	Structures			4	3	2	3	3	12
	Other Structural Imp.	Structures			15	0	102	56	58	269
C02	Non-Structural		Carson	1,2,3						
	Openings	Acres			20	0	20		20	60
	Wildlife/ Fish	Acres			0	1	1	1	1	8
	Seedings/ Plantings	Acres			0	1	26	26	26	83
	Prescribed Burning	Acres		1,2,3	0	25	65	40	40	200
C04	Maintenance	Structures	Carson	1,2,3,5	2	3	3	5	8	25
C03	Structures		Bridgeport	4,6						
	Water Development	Structures			5	6	6	6	6	24
	Fish/ Stream Improvement	Structures			1	2	3	3	3	12
	Spring Enclosures	Structures			2	2	2	2	2	8
	Brush piles	Structures			10	10	10	10	10	10
	Snags	Structures			25	25	25	25	25	100
C02	Non-Structural		Bridgeport	4,6						
	Openings	Acres			100	100	100	100	100	200
	Fish/ Stream	Structures			2	2	2	2	2	8
	Seeding	Acres			100	100	100	100	100	400
C02	Prescribed Burning	Acres	Bridgeport	4,6	100	100	120	115	115	460
C04	Maintenance	Structures / Acres	Bridgeport	4,6	6	6	6	10	10	40
C03	Structures		Austin	7,8,9,10						
	Water Development	Structures			3	3	2	3	3	12
	Fish/ Stream Improvement	Structures			10	10	10	10	10	40
	Spring Enclosures	Structures			1	1	1	1	1	5
	Brush piles	Structures			5	5	5	5	5	20
	Bird boxes	Structures			5	0	1	0	0	2
C02	Non-Structural									
	Openings	Acres	Austin	7	10	17	20	10	10	40
	Fish/ Stream	Acres			1	0	1	0	0	1
	Seeding/ Planting	Acres			2	0	10	5	10	30
C02	Prescribed Burning	Acres	Austin	7,8,9,10	400	400	400	400	400	1600
	Wildlife	Acres			0	0	0	0	0	0
C04	Maintenance	Acres/ Structures	Austin	7	6	6	6	10	10	40
C03	Structures		Tonapah	7,8,9						
	Water Development	Structures			3	3	3	3	3	15
	Fish/ Stream Improvement	Structures			10	5	10	10	15	25
	Spring Enclosures	Structures			3	1	1	0	1	5

WILDLIFE

MIH Code	Management Practice or Activity	Unit of Measure	District	Management Area	Outputs by Year 1986	1987	1988	1989	1990	1991-95
	Brush piles	Structures			5	10	0	0	5	40
	Bird boxes	Structures			2	5	3	3	3	15
C02	Non-Structural		Tonapah	7,8,9						
	Openings	Acres			5	5	5	5	5	25
	Fish/ Stream	Acres			10	5	10	10	15	25
	Seeding/ Planting	Acres			100	100	100	100	100	200
C02	Prescribed Burnning	Acres	Tonopah	7,8,9	400	400	400	400	400	2000
C04	Maintenance	Structures	Tonopah	7,8,9	2	6	10	10	20	50
C03	Structures		Vegas	11,12						
	Water Development	Structures			1	1	1	1	1	1
	Brush piles	Structures		11,12	3	3	3	3	3	3
C02	Non-Structural		Vegas							
	Openings	Acres			3	8	5	5	4	20
	Seedings/ Plantings	Acres		11,12	2	2	2	2	2	8
	Maintenance	Structures	Vegas		2	2	2	2	2	2

ROADS

MIH Code	Management Practice or Activity	Unit of Measure	District	Management Area	Outputs by Year 1986	1987	1988	1989	1990
	Buckeye-Robinsin Creek #10017 Major District recreation route	ROW-miles	2	4	2.1				
	Kingston-Big Creek #20002 District #1 priority	ROW-miles	3	8	3.0				
	Buckeye-Robinson #10017	Reconst.-miles	2	4		7.4			

ROADS

MIH Code	Management Practice or Activity	Unit of Measure	District	Management Area	Outputs by Year 1986	1987	1988	1989	1990
	Carson #20462	ROW-miles	1	2		7.0			
	Hunter Lake #20392	ROW-miles	1	2			6.3		
	Michelle Canyon-Long Valley #10010 Put land T20N, R17E, Sec 30	ROW-miles	1	1			.8		
	Port Aurthur #10034 District #3 Priority	ROW-miles	1	1			1.1		
	Mitchell Canyon #10124 Put land T20N, R17E, Sec 30	ROW-miles ROW-miles	1	1			.7		
	Kingston-Big Creek #20002 District #1 Priority	Reconst.-miles	3	8				5.5	

ROADS

MIH Code	Management Practice or Activity	Unit of Measure	District	Management Area	Outputs by Year 1987	1988	1989	1990	1991
	Birch Creek #20003 District #2 Priority	ROW-miles	3	8			1.0		
	San Juan #20016 District #3 Priority	ROW-miles	3	8			.8		
	White Sage #20025 District #4 Priority	ROW-miles	3	10			.5		
	Northumberland #20023 District #5 Priority	ROW-miles	3	9			.5		
	Union Canyon #20024 District #6 Priortiy	ROW-miles	3	7			.5		
	Grantsville #20108 District #7 Priority	ROW-miles	3	7			.6		
	Sunrise Basin	ROW-miles	1	1			1.2		
	Rough Creek #20045 Major District Route	Reconst.-miles	2	6				3.7	

ROADS

MIH Code	Management Practice or Activity	Unit of Measure	District	Management Area	Outputs by Year				
					1987	1988	1989	1990	1991
	Coulee Canyon-Long Valley #10003 District #2 Priority & 1993 T.S.	ROW-miles	1	1				1.2	
	Pete's Summit #20001 District #2 Priority	Reconst.-miles	3	9					7.9
	Muskgrove Canyon #20446 District #2 Priority & FY 1994 T.S.	ROW-miles	1	2					7.3

ROADS

MIH Code	Management Practice or Activity	Unit of Measure	District	Management Area	Outputs by Years		
					1992	1993	1994
	Spooner	ROW-miles	1	2	3.5		
	Coulee Canyon-Long Valley #10003 District #1 Priority & FY 1993 T.S.	Reconst.-miles	1	1	2.0		
	Mitchell Canyon-Long Valley #10010 Major District Route	Reconst.-miles	1	1	7.2		
	Red House #20186 District #5 Priority & FY 1994 T.S.	ROW-miles	1	2	5.8		
	Robert's Canyon #10182	ROW-miles	1	1		3.5	
	Muskgrove Canyon #20446 FY 1994 W. Little Valley T.S.	Reconst.-miles	1	2		7.3	
	Cloverdale #20018 Major District Route	ROW-miles	4	8		4.6	
	Peavine #20020 Major District Recreation Route	Reconst.-miles	4	8			2.6
	Rough Creek #20045 Major District Route Outside National Forest Boundary	ROW-miles	2	6			3.1

ROADS

MIH Code	Management Practice or Activity	Unit of Measure	District	Management Area	1992	1993	1994	1995
	Cloverdale #20018	Reconst.-miles	4	8				9.6
	Hunter Lake #20392 Sierra Front	ROW-miles	1	2				1.8

DEVELOPED RECREATION

MIH Code	Management Practice or Activity	Unit of Measure	District	Management Area	1986	1987	1988	1989	1990
A05	LOWER TWIN C.G.	PAOT DAYS	2	4	X				
A05	SAWMILL C.G	PAOT DAYS	2	4		X			
A05	TRUMBULL LAKE C.G	PAOT DAYS	2	4		X			
A05	HONEYMOON C.G.	PAOT DAYS	2	4			X		
A05	Lake C.G.	PAOT DAYS	2	4				X	
A05	BIG CREEK C.G. (WATER)	PAOT DAYS	3	8				X	
A05	KINGSTON C.G. (WATER)	PAOT DAYS	3	8				X	
A06	BOULDER C.G.	PAOT DAYS	2	4					X
A05	HOPE VALLEY C.G.	PAOT DAYS	1	3					X

DEVELOPED RECREATION

MIH Code	Management Practice or Activity	Unit of Measure	District	Management Area	1991	1992	1993	1994	1995
A06	FAITH VALLEY C.G.	PAOT DAYS	1	3		X			
A06	BRIDGEPORT V.I.S. CENTER	PAOT DAYS	2	6				X	

DISPERSED RECREATION

MIH Code	Management Practice or Activity	Unit of Measure	District	Management Area	1986	1987	1988	1989	1990
A06 L10 L11 L12	Tahoe Meadow Trail Head	PAOT Days	1	2			X		
A10	PCT Trail-East Fork Carson	PAOT Days	1	3		X			

DISPERSED RECREATION

MIH Code	Management Practice or Activity	Unit of Measure	District	Management Area	Outputs by Year 1986	1987	1988	1989	1990
A06 L10 L11 L12	Wolf Creek Trail Head	PAOT Days	1	3				X	
A06 L10 L11 L12	Virginia Lake Trail Head	PAOT Days	2	4	X				
A06 L10 L11 L12	Green Lakes Trail Head	PAOT Days	2	4					X
A10	Twin Lakes Trail Head	PAOT Days	2	4				X	

DISPERSED RECREATION

MIH Code	Management Practice or Activity	Unit of Measure	District	Management Area	Outputs by Year 1991	1992	1993	1994	1995
A06 L10 L11 L12	Burnside Trail Head	PAOT Days	1	3		X			
A11	Alpine Trail Construction (5 Miles)	PAOT Days	1	3			X		
A11	Walker Trail (2 Miles)	PAOT Days	2	4	X				
A06 L10 L11 L12	Washington Trail Head	PAOT Days	3	8				X	
A06 L10 L11 L12	Cow Canyon Trail Head	PAOT Days	4	8					5

RANGE

MIH Code	Management Practice or Activity	Unit of Measure	District	Management Area	Outputs by Year 1986	1987	1988	1989	1990	1991-95
D01	Range Resource Planning									
	Initial Plans	Plans	Carson	Dog Valley						3
	Update Plans	Plans				1				
D02	Range Resource Inventory									
	Initial Analysis	Acres								
	Update Analysis	Acres								

RANGE

MIH Code	Management Practice or Activity	Unit of Measure	District	Management Area	1986	1987	1988	1989	1990	1991-95
D03	Range Nonstructural Improvement, Initial	Acres								
D04	Range Nonstructural Improvement, Maintenance	Acres								
D05	Range Structural Improvement, New	Structures			1	3	3	3	2	5
D07	Range Administrtion and Management									
	Permit Admin & Mgmt	Cases			4	4	4	4	4	20
	Allot/Terr Examinations	Cases			4	4	4	4	4	20
	Wild Horses and Burros	Cases								
D12	Control of Noxious Farm Weeds	Acres								
F07	Water Rights	Claims								
D01	Range Resource Planning									
	Initial Plans	Plans	Carson	Carson Front						4
	Update Plans	Plans						1		1
D02	Range Resource Inventory									
	Initial Analysis	Acres				35000				650
	Update Analysis	Acres				2500				
D03	Range Nonstructural Improvement, Initial	Acres								400
D04	Range Nonstructural Improvement, Maintenance	Acres								
D05	Range Structural Improvement, New	Structures						2	4	5
D07	Range Administrtion and Management									
	Permit Admin & Mgmt	Cases			6	6	6	6	6	30
	Allot/Terr Examinations	Cases			6	6	6	6	6	80
	Wild Horses and Burros	Cases								
D12	Control of Noxious Farm Weeds	Acres								
F07	Water Rights	Claims						4	2	2
D01	Range Resource Planning									
	Initial Plans	Plans	Carson	Alpine			2		1	6
	Update Plans	Plans				1				

RANGE

MIH Code	Management Practice or Activity	Unit of Measure	District	Management Area	Outputs by Year 1986	1987	1988	1989	1990	1991-95
D02	Range Resource Inventory									
	Initial Analysis	Acres					10240			
	Update Analysis	Acres					3100			
D03	Range Nonstructural Improvement, Initial	Acres						100	100	700
D04	Range Nonstructural Improvement, Maintenance	Acres								
D05	Range Structural Improvement, New	Structures			7	3	5	8	6	17
D07	Range Administrtion and Management									
	Permit Admin & Mgmt	Cases			14	14	14	14	14	70
	Allot/Terr Examinations	Cases			14	14	14	14	14	70
	Wild Horses and Burros	Cases								
D12	Control of Noxious Farm Weeds	Acres								
F07	Water Rights	Claims								
D01	Range Resource Planning									
	Initial Plans	Plans	Carson	Wilderness Carson-Iceberg & Raymond Peack					1	
	Update Plans	Plans			2					2
D02	Range Resource Inventory									
	Initial Analysis	Acres								
	Update Analysis	Acres					5100			
D03	Range Nonstructural Improvement, Initial	Acres								
D04	Range Nonstructural Improvement, Maintenance	Acres								
D05	Range Structural Improvement, New	Structures			3	4	4			6
D07	Range Administrtion and Management									
	Permit Admin & Mgmt	Cases			5	5	5	5	5	25
	Allot/Terr Examinations	Cases			5	5	5	5	5	25
	Wild Horses and Burros	Cases								
D12	Control of Noxious Farm Weeds	Acres								

MIH Code	Management Practice or Activity	Unit of Measure	District	RANGE Management Area	Outputs by Year 1986	1987	1988	1989	1990	1991-95
F07	Water Rights	Claims								
D01	Range Resource Planning									
	Initial Plans	Plans	Bridgeport	Walker		2	2	2		
	Update Plans	Plans			8					4
D02	Range Resource Inventory									
	Initial Analysis	Acres			39185		6960			
	Update Analysis	Acres								
D03	Range Nonstructural Improvement, Initial	Acres					100			
D04	Range Nonstructural Improvement, Maintenance	Acres								
D05	Range Structural Improvement, New	Structures						2	3	
D07	Range Administration and Management									
	Permit Admin & Mgmt	Cases			19	19	19	19	19	95
	Allot/Terr Examinations	Cases			19	19	19	19	19	95
	Wild Horses and Burros	Cases								
D12	Control of Noxious Farm Weeds	Acres								
F07	Water Rights	Claims								
D01	Range Resource Planning									
	Initial Plans	Plans	Bridgeport	Hoover Wilderness						
	Update Plans	Plans			1					1
D02	Range Resource Inventory									
	Initial Analysis	Acres								
	Update Analysis	Acres								
D03	Range Nonstructural Improvement, Initial	Acres								
D04	Range Nonstructural Improvement, Maintenance	Acres								
D05	Range Structural Improvement, New	Structures								
D07	Range Administrtion and Management									
	Permit Admin & Mgmt	Cases			1	1	1	1	1	5
	Allot/Terr Examinations	Cases			1	1	1	1	1	5
	Wild Horses and Burros	Cases								

RANGE										
MIH Code	Management Practice or Activity	Unit of Measure	District	Management Area	Outputs by Year					
					1986	1987	1988	1989	1990	1991-95
D12	Control of Noxious Farm Weeds	Acres								
F07	Water Rights	Claims								
D01	Range Resource Planning									
	Initial Plans	Plans	Bridgeport	Hoover Wilderness Extension		2				1
	Update Plans	Plans								
D02	Range Resource Inventory									
	Initial Analysis	Acres								
	Update Analysis	Acres			37265					
D03	Range Nonstructural Improvement, Initial	Acres								
D04	Range Nonstructural Improvement, Maintenance	Acres								
D05	Range Structural Improvement, New	Structures								
D07	Range Administrtion and Management									
	Permit Admin & Mgmt	Cases			3	3	3	3	3	15
	Allot/Terr Examinations	Cases			3	3	3	3	3	15
	Wild Horses and Burros	Cases								
D12	Control of Noxious Farm Weeds	Acres								
F07	Water Rights	Claims								
D01	Range Resource Planning									
	Initial Plans	Plans	Bridgeport	Bridgeport PJ	2		3	1	7	0
	Update Plans	Plans			5					7
D02	Range Resource Inventory									
	Initial Analysis	Acres				39320		53140		
	Update Analysis	Acres				75860	10380	116090		
D03	Range Nonstructural Improvement, Initial	Acres			200	250				
D04	Range Nonstructural Improvement, Maintenance	Acres								
D05	Range Structural Improvement, New	Structures			9	1			8	

RANGE

MIH Code	Management Practice or Activity	Unit of Measure	District	Management Area	Outputs by Year 1986	1987	1988	1989	1990	1991-95
007	Range Administrtion and Management									
	Permit Admin & Mgmt	Cases			25	25	25	25	25	125
	Allot/Terr Examinations	Cases			25	25	25	25	25	125
	Wild Horses and Burros	Cases			2	2	2	2	2	10
D12	Control of Noxious Farm Weeds	Acres								
F07	Water Rights	Claims			3			1		
D01	Range Resource Planning									
	Initial Plans	Plans	Austin	Shoshone-Paradise		1	2			1
	Update Plans	Plans								
D02	Range Resource Inventory									
	Initial Analysis	Acres				27900				190000
	Update Analysis	Acres								
D03	Range Nonstructural Improvement, Initial	Acres			200		200			500
D04	Range Nonstructural Improvement, Maintenance	Acres						4000		
D05	Range Structural Improvsment, New	Structures			12	2	3	6	9	34
007	Range Administrtion and Management									
	Permit Admin & Mgmt	Cases			4	4	4	4	4	20
	Allot/Terr Examinations	Cases			4	4	4	4	4	20
	Wild Horses and Burros	Cases			3	3	3	3	3	15
D12	Control of Noxious Farm Weeds	Acres					20	20	20	100
F07	Water Rights	Claims			4			2		
D01	Range Resource Planning									
	Initial Plans	Plans	Austin	Toiyabe	2				1	
			Tonopah		0				0	
	Update Plans	Plans	Austin		1	1	0	4	1	3
			Tonapah		1	1	1	0	0	0
D02	Range Resource Inventory									
	Update Analysis	Acres	Austin		0	13230				
			Tonapah		54000	3000				186000
D03	Range Nonstructural Improvement, Initial	Acres	Austin		0		1000		500	500
			Tonapah		500		0		0	1500

RANGE

MIH Code	Management Practice or Activity	Unit of Measure	District	Management Area	Outputs by Year					
					1986	1987	1988	1989	1990	1991-95
D04	Range Nonstructural Improvement, Maintenance	Acres	Austin			2000				7000
			Tonapah			0				500
D05	Range Structural Improvement, New	Structures	Austin		12	21	21	12	3	39
			Tonapah		0	0	1	1	1	9
D07	Range Administration and Management									
	Permit Admin & Mgmt	Cases	Austin		10	10	10	10	10	50
			Tonapah		2	2	2	2	2	10
	Allot/Terr Examinations	Cases	Austin		10	10	10	10	10	50
			Tonapah		6	6	6	6	6	30
	Wild Horses and Burros	Cases	Austin		1	1	1	1	1	6
			Tonapah		1	1	1	1	1	4
D12	Control of Noxious Farm Weeds	Acres	Austin		50	70	70	70	70	300
			Tonapah		0	0	50	0	0	100
F07	Water Rights	Claims	Austin		3	3	6	4	5	6
			Tonapah		3	0	1	1	2	5
D01	Range Resource Planning Initial Plans	Plans	Austin	Toquima	1		1	1		
			Tonapah		1		0	0		
	Update Plans	Plans	Austin		1	1	0		1	1
			Tonapah		1	0	1		1	3
D02	Range Resource Inventory Update Analysis	Acres	Austin			0	55180	0		
			Tonapah			11800	12000	8000		
D03	Range Nonstructural Improvement, Initial	Acres	Austin		0		0	0		2000
			Tonapah		150		500	1450		0
D04	Range Nonstructural Improvement, Maintenance	Acres	Austin							0
			Tonapah							1500
D05	Range Structural Improvement, New	Structures	Austin			0	0	0	1	15
			Tonapah			2	5	5	1	7
D07	Range Administrtion and Management									
	Permit Admin & Mgmt	Cases	Austin		7	7	7	7	7	35
			Tonapah		2	2	2	2	2	10
	Allot/Terr Examinations	Cases	Austin		3	3	3	3	3	15
			Tonapah		6	6	6	6	6	30

RANGE

MIH Code	Management Practice or Activity	Unit of Measure	District	Management Area	Outputs by Year					
					1986	1987	1988	1989	1990	1991-95
	Wild Horses and Burros	Cases	Austin		2	2	2	2	2	10
			Tonapah		1	1	1	1	1	5
D12	Control of Noxious Farm Weeds	Acres	Austin					20	20	60
			Tonapah					0	0	0
F07	Water Rights	Claims	Austin		0	0	0	1	0	6
			Tonapah		3	1	5	1	4	11
D01	Range Resource Planning									
	Initial Plans	Plans	Austin	Monitor	1			0		
			Tonapah		1			1		
	Update Plans	Plans	Austin			2		1	0	
			Tonapah			1		1	3	
D02	Range Resource Inventory									
	Initial Analysis	Acres	Austin		52000					
			Tonapah		0					
	Update Analysis	Acres	Austin			0	0	0		
			Tonapah			15000	100000	14000		
D03	Range Nonstructural Improvement, Initial	Acres	Austin		400	0	400	1000		500
			Tonapah		0	500	0	0		200
D04	Range Nonstructural Improvement, Maintenance	Acres	Austin							2000
			Tonapah							0
D05	Range Structural Improvement, New	Structures	Austin		12	6	8	8	18	27
			Tonapah		8	6	2	2	1	16
D07	Range Administrtion and Management									
	Permit Admin & Mgmt	Cases	Austin		10	10	10	10	10	50
			Tonapah		2	2	2	2	2	10
	Allot/Terr Examinations	Cases	Austin		6	6	6	6	6	35
			Tonapah		7	7	7	7	7	30
	Wild Horses and Burros	Cases	Austin		3	3	3	3	3	15
			Tonapah		1	1	1	1	1	5
D12	Control of Noxious Farm Weeds	Acres	Austin		50	50	50	50	50	200
			Tonapah		0	0	50	50	50	0
F07	Water Rights	Claims	Austin		4	2	0	1	0	12
			Tonapah		3	3	4	2	4	11
D01	Range Resource Planning									
	Initial Plans	Plans								
	Update Plans	Plans								

RANGE

MIH Code	Management Practice or Activity	Unit of Measure	District	Management Area	Outputs by Year 1986	1987	1988	1989	1990	1991-95
D02	Range Resource Inventory									
	Initial Analysis	Acres								
	Update Analysis	Acres								
D03	Range Nonstructural Improvement, Initial	Acres								
D04	Range Nonstructural Improvement, Maintenance	Acres								
D05	Range Structural Improvement, New	Structures								
D07	Range Administrtion and Management									
	Permit Admin & Mgmt	Cases								
	Allot/Terr Examinations	Cases								
	Wild Horses and Burros	Cases								
D12	Control of Noxious Farm Weeds	Acres								
F07	Water Rights	Claims								

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TEN YEAR TIMBER SALES DIRECTION

The programmed sales and long-term sustained yield capacity for this plan is as follows:

Decade Total Scheduled Yield	Planning Period (Decade)				
	1	2	3	4	5
Timber					
Yield (MCF)	6,932	6,933	6,934	6,937	6,936
Yield (MBF)	45,000	45,000	45,000	45,000	45,000

Long-Term Sustained Yield Capacity = 15,410 MCF per Decade

The estimates of volumes contained in the ten year sale plan are tentative and will be adjusted based on field locations and measurements. Annually as each year's prescriptions are completed, the sale action plan will be updated to show any changes in area, volume, and road needs. These changes will reflect the implementation of the management prescriptions for that management area. The implementation of the management prescriptions will be accomplished by written silvicultural prescriptions by certified silviculturists. These site specific prescriptions will determine the management of each stand including thinnings.

FY	Sale Name	Ranger District	Mgt. Area	Volume	Type of Harvest	Road Construction Reconstruction
1986	Pleasant-Spratt	Carson	3	1,600 MBF	Shelterwood/Thinning	4.4 Miles
	Small Sales	All	All	1,000 MBF		
1987	Horseshoe	Carson	3	2,500 MBF	Shelterwood/Group Selection	3.1 Miles
	Small Sales	All	All	900 MBF		
1988	Mill Canyon	Bridgeport	4	2,000 MBF	Shelterwood/Retention Group Selection and Patch Clearcuts	5.8 Miles
	Small Sales	All	All	1,500 MBF		
1989	Hidden	Carson	3	4,000 MBF	Shelterwood/Group Selection	5.1 Miles
	Small Sales	All	All	900 MBF		
1990	Sunrise Basin	Carson	2	5,400 MBF	Shelterwood/Special	3.4 Miles
	Small Sales	All	All	900 MBF		
1991	Horsethief	Carson	3	3,000 MBF	Shelterwood/Group Selection	4.7 Miles
	Small Sales	All	All	2,000 MBF		
1992	Spooner Summit	Carson	2	4,800 MBF	Shelterwood	4.5 Miles
	Small Sales	All	All	1,000 MBF		
1993	Roberts Canyon	Carson	1	3,000 MBF	Shelterwood/Retention Thinning	8.6 Miles
	Small Sales	All	All	1,500 MBF		
1994	W. Little Valley	Carson	2	3,000 MBF	Shelterwood	4.5 Miles
	Small Sales	All	All	1,500 MBF		
1995	Niehcshorts	Carson	3	3,000 MBF	Shelterwood	6.8 Miles
	Small Sales	All	All	1,500 MBF		

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Access - Usually refers to a road or trail route over which a public agency claims a right-of-way for public use.

Acre equivalent - The index of acres affected by wildlife habitat improvements in contrast to actual acres treated.

Acre-foot - A measure of water or sediment volume equal to the amount which would cover an area of 1 acre to a depth of 1 foot (325,851 gallons).

Activity - The work processes or management practices that are conducted to produce, enhance, or maintain outputs or achieve administrative and environmental quality objectives (FSM 1309, Management Information Handbook). An activity can generate multiple outputs.

Activity area - The total area for which a ground-impacting activity is planned. An activity area may be a unit of a timber sale, a slash disposal or site preparation project, grazing allotment, etc., including the transportation facilities in and adjacent to the project area. This definition excludes site intensive developments such as campgrounds, mines, drill sites, aggregate source areas, and water developments.

Activity fuels - Logging debris generated from any activity on the Forest such as firewood gathering, precommercial thinning, timber harvesting, and road construction, which increases fire potential.

Activity outputs - The quantifiable goods or services resulting from any management actions taken on the Forest.

Administrative headquarters site - A site which exists primarily for general administrative purposes. It normally will include office, warehouse, outside storage, and parking areas. It may include housing and pasture for livestock. A work center may be part of an administrative headquarters site.

Administrative unit - All the National Forest System lands for which one Forest Supervisor has responsibility.

Affected environment - The natural and physical environment under the administration of one line officer, such as District Ranger or Forest Supervisor.

Age class - An interval, usually 10 to 20 years, into which the age ranges of vegetation are divided for classification or use.

Agricultural base - Economy in which the base industry of a community is agriculture.

Airshed - A geographic area that, because of topography, meteorology, and climate, shares the same air. As applied to the National Forest by the Clean Air Act, amended August 1977, the term covers all wilderness areas larger than 5,000 acres that were in existence as of August, 1977.

Allotment - See Range allotment.

Allowable sale quantity - The quantity of timber that may be sold from the area of suitable land covered by the Forest Plan for a time period specified by the Plan. This quantity is usually expressed on an annual basis as the "average annual allowable sale quantity."

Alternative - One of several policies, plans, or projects proposed for decision making.

Analysis area - One or more "cells" grouped for purposes of analysis. Analysis areas are cells in the same capability zone, working group, road cost zone, slope and timber condition class. Analysis areas are cells that have been grouped based on common impacts, effects, and social or economic factors.

Analysis of the Management Situation (AMS) - A determination of the ability of the planning area to supply goods and services in response to society's demand for those goods and services.

Animal Unit Month (AUM) - The amount of forage required by one mature (1,000 lb.) cow and calf or that equivalent for one month.

Annual Forest Program - The summary or aggregation of all projects that make up an integrated (multifunctional) course of action, at a given level of funding for a Forest planning area, that is consistent with the Forest Plan.

Appropriate costs - The sum of operational and capital investment costs.

Aquatic ecosystems - There are the stream channel, lake, or estuary bed, water itself and biotic communities that occur therein.

Arterial roads - Primary traffic route serving a large area and providing travel efficiency for many activities. Arterial roads are non-project roads, usually built with Agency funds.

Assessment - The Forest and Rangeland Renewable Resource Assessment required by the Resources Planning Act (RPA).

In soil and water terminology, an acreage determination of all system roads, spur roads, landings, and constructed skidroads that should be made for each land-disturbing project area. (A typical timber sale will contain three to five percent of the area in this condition.) In addition, acreages displaying other forms of determental disturbance should be determined. These are typically areas of moderate compaction, erosion, displacement, or shallow puddling. (A typical timber sale will contain five to 35% of the area in this condition in addition to the roads, landings, etc., mentioned above, depending upon logging systems used.) These less severe types of detrimental disturbance generally offer the best opportunities for successful productivity restoration.

Available forest land - Land which has not been legislatively withdrawn or administratively withdrawn by the Secretary of Agriculture or Forest Service Chief from timber production.

Average annual cut - The volume of timber harvested in a decade, divided by 10; used as a basis for comparison of alternatives, not as a measure of nondeclining yield.

Background - The visible terrain beyond the foreground and middleground where individual trees are not visible but are blended into the total fabric of the stand. Also the portion of a view between three to five miles from the observer, and as far as the eye can detect objects.

Basal area - The area of the cross-section of a tree stem near the base, generally at breast height and inclusive of bark.

Base sale schedule - A timber sale schedule formulated on the basis that the quantity of timber planned for sale and harvest for any future decade is equal to or greater than the planned sale and harvest for the preceding decade, and this planned sale and harvest for any decade is not greater than the long-term sustained yield capacity. (This definition expresses the principle of nondeclining flow.)

Baseline - With respect to soils, the amount of erosion and sedimentation due to natural sources in the absence of human activity.

Benefit - The total value of an output or other effect.

Best Management Practices (BMP) - A practice or combination of practices that are the most effective and practical (including technological, economic, and institutional considerations) means of preventing or reducing the amount of pollution generated by nonpoint sources to a level compatible with water quality goals.

Big game - Those species of large mammals normally managed as a sport hunting resource.

Big-game management unit - Political/biological units of land used by the Nevada and California Department of Fish and Game as season-setting and data collection areas.

Big-game summer range - The area available to and used by big game through the summer season.

Big game winter range - The area available to and used by big game through the winter season.

Biological capacity - The average net growth of wood attainable under intensive management.

Biological control - A method to control insect populations or tree diseases through the use of applied technology.

Biological growth-potential - The average net growth attainable in a fully stocked natural forest stand.

Biological potential - The maximum possible output of a given resource, limited only by its inherent physical and biological characteristics.

Biotic condition Index - An index that expresses how close an acquatic ecosystem is to its own potential. Expressed as a percentage.

Board feet - The amount of wood equivalent to a piece of wood one foot by one foot by one inch thick. Generally, five board feet log measure is equivalent to one cubic foot of round wood.

Board foot/cubic foot conversion ratio - Both board foot and cubic foot volumes can be determined for timber stands. The number of board feet per cubic foot of volume varies with tree species, diameter, height, and form factors. For the Toiyabe, the Forest-wide average conversion ratio is 6.45 board feet per cubic foot. A specific factor by species is applied to the cubic foot FORPLAN outputs to give board foot estimates.

British Thermal Unit - The amount of heat required to raise the temperature of one pound of water one degree Fahrenheit.

Browse - Twigs, leaves, and young shoots of trees and shrubs on which animals feed; in particular, those shrubs which are utilized by big game animals for food.

Calving areas - Areas traditionally used by the cow elk for giving birth and rearing calves until they are approximately two weeks old. These areas are located where escape and thermal cover exists for the cows and the relatively immobile newborn calves. Succulent forage is usually available for the lactating female. Water is found in the immediate areas and the terrain is gentle with slopes of 15 percent or less interspersed with steeper sites. These areas are normally found along the upper portion of the spring migration route.

Canopy - The more-or-less continuous cover of branches and foliage formed collectively by the crown of adjacent trees and other woody growth.

Capable lands - Those portions of the Forest that have an inherent ability to support trees for timber harvest and produce at least 20 cubic feet/acre/year of wood fiber.

Capability - The potential of an area of land to produce resources, supply goods and services, and allow resource uses under an assumed set of management practices and at a given level of management intensity. Capability depends upon current conditions and site conditions such as climate, slope, landform, soils and geology, as well as the application of management practices, such as silviculture or protection from fire, insects, and disease.

Capability zone - Land capability zones used in FORPLAN.

Capital investment costs - Those costs associated with construction or development of improvements; includes road construction, reforestation, campground construction, range improvements, etc.

Carrying capacity - The number of organisms of a given species and quality that can survive in, without causing deterioration of, a given ecosystem through the least favorable environmental conditions that occur within a stated interval of time. As used in the determination of elk habitat effectiveness, carrying capacity is the estimated capability (expressed as the number of elk per square mile) of the elk herd subunit to provide quality elk habitat.

Catastrophic condition - A significant change in forest conditions on the area that affects Forest Plan resource management objectives and their projected and scheduled outputs, uses, costs, and effects on local communities and environmental quality.

Cavity - The hollow excavated in trees by birds or other natural phenomena; used for roosting and reproduction by many birds and mammals.

Cell - The basic information unit used in the Toiyabe NF planning data base a unique land unit defined by a combination of characteristics such as land ownership, timber strata, range suitability, wildlife habitat areas, etc.; synonymous with "capability area" used by other Forests.

Characteristic landscape - The overall impression created by a landscape's unique combination of visual features (land, vegetation, water structures), as seen in terms of form, line, color and texture; synonymous with "visual landscape character."

Clearcutting - The cutting method that describes the silviculture system in which the old crop is cleared over a considerable area at one time. Regeneration then occurs from (a) natural seeding from adjacent stands, (b) seed contained n the slash or logging debris, (c) advance growth, or (d) planting or direct seeding. An even-aged forest usually results.

Climax - The culminating stage in plant succession for a given site where the vegetation has reached a highly stable condition.

Closure - The administrative order restricting either location, timing, or type of use in a specific area.

Collector roads - Roads constructed to serve two or more elements but which do not fit into the other two categories·(arterial or local). Construction costs of these facilities are prorated to the respective element served. These roads serve smaller land areas and are usually connected to a Forest arterial or public highway. They collect traffic from Forest roads or terminal facilities. The location and standard are influenced by both long-term multi-resource service needs and travel efficiency. Forest collector roads are operated for constant service.

Congressional study areas (Planning Areas) - Roadless areas identification in the California Wilderness Act of 1984 Requiring a wilderness study and report to congress within three years of the Act.

Commercial Forest Land - Used under old timber classification; Forest land which is capable of producing crops of industrial wood and which has not been reserved or deferred; includes both accessible and nonaccessible areas that produce more than 20 cubic feet of growth per acre each year. Permanently inoperable or nonstockable areas are excluded because they are unsuitable for silvicultural management. Conversely, nonstocked areas which are stockable and otherwise meet this definition are included.

Commodities - Products produced from a parcel of land; e.g., outputs of wood, livestock forage, and minerals.

Common minerals - Deposits such as sand, stone, gravel, and clay.

Compartment - Land areas, generally watersheds, averaging 5,000 to 7,000 acres in size, which act as timber data storage units.

Condition class - A grouping of timber strata into size-age-stocking classes for Forest planning.

Community lifestyles - The ways in which residents conduct their everyday routines and how the "way they live" is associated with the National Forest.

Confinement - To restrict the fire within determined boundaries established either prior to the fire, during the fire, or in an escaped fire situation analysis. The normal tactic is surveillance only.

Conifer - Those cone-bearing trees, mostly evergreen, including the pine, spruce, fir, etc.

Consumptive use - A use of resources that reduces the supply, such as logging and mining. See also "Nonconsumptive use."

Containment - To surround a fire, and any spot fires therefrom, with control line, as needed, which can reasonably be expected to check the fire's spread under prevailing and predicted conditions. The normal tactic is indirect attack and burn to human-made or natural barrier with little or no mop-up.

Control - To complete the control line around a fire, any spot fires therefrom, and any interior islands to be saved, burn out any unburned area adjacent to the fire side of the control line, and cool down all hot spots that are immediate threats to the control line, until the line can reasonably be expected to hold under foreseeable conditions. The normal tactic is direct attack on the fire, if possible, and mop-up.

Coordinated allocation and scheduling zone (CASZ) - An area of land used,for analytical purposes, to assure that compatible activities and uses can be assigned and scheduled to meet a specific management objective.

Corridor - A linear strip of land identified for the present or future location of transportation or utility rights-of-way within its boundaries.

Cost effectiveness - Achieving specified outputs or objectives under given conditions for the least cost.

Cost-efficiency - The usefulness of specified inputs (costs) to produce specified outputs (benefits). In measuring cost efficiency, some outputs, including environmental, economic, or social impacts, are not assigned monetary values but are achieved at specified levels in the least costly manner. Cost efficiency is usually measured using present net value, although use of benefit-cost ratios and rates-of-return may be appropriate.

Council on Environmental Quality - An advisory council to the President established by the National Environmental Policy Act of 1969. It reviews Federal programs for their effect on the environment, conducts environmental studies, and advises the President on environmental matters.

Critical habitat - Key land areas used by wildlife for forage and reproduction.

Crown height - Of a standing tree, the vertical distance from ground level to the base of the crown measured either to the lowest live branchwhorl or to the lowest live branch (excluding shoots arising spontaneously from buds on the stem of a woody plant) or to a point halfway between.

Cubic foot - The amount of timber equivalent to a piece of wood one foot by one foot by one foot.

Cubic yard - A measure of soil or sediment volume which would cover a square yard of area one yard deep (3 feet x 3 feet x 3 feet).

Culmination of mean annual increment - The point where the mean annual growth increment (the basal area of a stand of trees divided by their age) ceases to increase prior to decline.

Cultural resource - The remains of sites, structures, or objects used by humans in the past--historical or archaeological.

Cultural sensitivity - Refers to the likelihood of encountering significant cultural volumes (quantity and/or quality) which may affect and be affected by ground-disturbing activities.

Cutting cycle - The planned lapse of time between successive cuttings in a stand.

Diameter at breast height - The diameter of a tree measured 4 feet 6 inches above the ground.

Data - Any recorded measurements, facts, evidence, or observations reduced to written, graphical, tabular or computer form. The term implies reliability, and therefore, provides an explanation of source, type, precision and accuracy.

Deficit timber sale - A timber sale where the costs associated with producing the primary product(s) plus profit margin are greater than the selling value of the same product(s).

Decking areas - Sites that are intermediate between stump and landing, used to collect logs.

Decision criteria - Essentially the rules or standards used to evaluate alternatives. They are measurements or indicators that are designed to assist a decisionmaker to identify a preferred choice from the array of possible alternatives.

Demand - The quantity of goods or services called for at various prices, holding other factors constant.

Departure - The temporary deviation from the non-declining even-flow policy.

Dependent communities - Communities whose social, economic, or political life would become discernably different in important respects if market or nonmarket outputs from the National Forests were cut off.

Design capacity - The maximum theoretical amount of use a developed recreation site was built to accommodate.

Design standard - Approved design and construction specifications mainly used for recreation facilities and roads--includes specified materials, colors, dimensions, etc.

Designated corridor - A linear area of land with defined and recognized boundaries identified and designated by legal public notice.

Destination resort - A recreation resort designed for multi-day use in contrast to day use.

Detrimental Disturbance - The alteration of the natural soil characteristics which results in immediate and/or prolonged violations of off-site resources quality standards or a reduction in timber volume growth (timber sites) or biomass production (non-timbered sites) of more than 25 percent.

Detrimental disturbance is represented by the following physical characteristics:

(A) Soil Puddling - Where the soil has been manipulated in a saturated or nearly saturated condition to the point that natural structural identity is lost.

(B) Soil Compaction - Where one or more of the following conditions occur in relation to natural: a 50% reduction in macropore space; less than 15% macropore space, total; 15% increase in soil bulk density; or a 40% reduction in hydraulic conductivity. (All measurements at the 6" depth.)

(C) Displacement - Where, through erosion or mechnical means, more than 50% of the natural A1 and/or AC horizons (dark colored surface horizons) is removed from more than 20% of an activity area, excluding system roads and permanent facilities. Displacement on specific sites smaller than 100 square feet (continuous) or where soil has moved less than 10 feet from its predisturbance position will not normally be considered significant.

Developed recreation - Recreation that requires facilities that, in turn, result in concentrated use of an area. Examples of recreation areas are campgrounds and ski areas; facilities in these areas might include roads, parking lots, picnic tables, toilets, drinking water, ski lifts, and buildings.

Developed recreation site - Relatively small, distinctly defined area where facilities are provided for concentrated public use; e.g., campgrounds, picnic areas, swimming areas.

Direct outputs - Resource outputs that are caused by the action and occur at the same time and place.

Discount rate - An interest rate that represents the cost or time value of money in determining the present value of future costs and benefits.

Discounting - An adjustment, using a discount rate, for the value of money over time so that costs and benefits occurring in the future are reduced to a common time, usually the present, for comparison.

Dispersed recreation - A general term referring to recreation use outside the developed recreation site; this includes activities such as scenic driving, hunting, backpacking, and recreation in primitive environments.

Distance zone - One of three categories used in the Visual Management System to divide a view into near and far components. The three categories are: (1) foreground, (2) middle ground, and (3) background.

Diversity - The distribution and abundance of different plant and animal communities and species within the area covered by a land and resource management plan.

Draft Environmental Impact Statement - The statement of environmental effects which is required for major Federal actions under Section 102 of the National Environmental Policy Act, and released to the public and other agencies for comment and review.

Early forest succession - The biotic community that develops immediately following the removal or destruction of the vegetation in an area.

Economic efficiency analysis - An analytical method in which incremental market and nonmarket benefits are compared with incremental economic costs.

Ecological status - The present state of the vegetation and soil protection of an ecological site in relation to the potential Natural Community for the site.

High status - Near climax vegetation.

Moderate status - Approaching climax vegetation.

Low status - Seral state of vegetation.

Economic growth - Increased economic output in real terms over time.

Ecosystems - An interacting system of organisms considered together with their environment; for example, marsh, watershed, and lake ecosystems.

Edge - Area where plant communities meet or where successional stages or vegetation conditions within the plant communities come together.

Effects - Environmental consequences as a result of a proposed action. Included are direct effects, which are caused by the action and occur at the same time and place, and indirect effects, which are caused by the action and are later in time or further removed in distance, but which are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems.

Effects and impacts as used in this statement are synonymous. Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic quality, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions that may have both beneficial and detrimental effects, even if on balance the agency believes that the effects will be beneficial (40 CFR 1508.8).

Effective ground cover - All vegetative material within three feet of the exposed soil surfaces as well as any additional litter, rock, and rock fragments on the soil surface.

Electronic sites - Areas designated for the operation of equipment which transmits and receives radio signals, excluding television aerials and antennas, for local pickup of programing and passive reflectors.

Endangered species - Any species of animal or plant that is in danger of extinction throughout all or a significant portion of its range. Plants or animal species identified by the Secretary of the Interior as endangered in accordance with the 1973 Endangered Species Act.

Endemic - An insect or disease occurring regularly in a locality or region with its normal status at low to moderate severity levels.

Endemic plant - A plant confined to a certain country or region and with a comparatively restricted geographic distribution.

Environmental analysis - An analysis of alternative actions and their predictable short-and long-term environmental effects, which include physical, biological, economic, social, and environmental design factors and their interactions.

Environmental Assessment - The concise public document required by the regulations for implementing the procedural requirements of NEPA (40 CFR 1508.9).

Environmental Impact Statement (EIS) - A statement of the environmental effects of a proposed action and alternatives to it. It is required for major Federal actions under Section 102 of the National Environmental Policy Act (NEPA) and released to the public and other agencies for comment and review. It is a formal document that must follow the requirements of NEPA, the Council on Environmental Quality (CEQ) guidelines, and directives of the agency responsible for the project proposal.

Evaluation criteria - Standards developed for appraising alternatives.

Even-aged management - The application of a combination of actions that results in the creation of stands in which trees of essentially the same age grow together. Managed even-aged forests are characterized by a distribution of stands of varying ages (and, therefore, tree sizes) throughout the forest area. The difference in age between trees forming the main canopy level of a stand usually does not exceed 20 percent of the age of the stand at harvest rotation age. Regeneration in a particular stand is obtained during a short period at or near the time that a stand has reached the desired age or size for regeneration and is harvested. Clearcut, shelterwood, or seed tree cutting methods produce even-aged stands.

Even-aged silviculture - The combination of timber management actions that result in the creation of stands where trees of essentially the same age grow together.

Clearcutting - The removal, in a single cut, of all trees in stands larger than seedlings.

Seed tree cutting - Similar to clearcutting, except that a few of the better trees of the desired species are left scattered over the area to provide seed for regeneration.

Shelterwood cutting - The removal of all trees in a series of two or more cuts over a period of not more than 30 years.

Even-aged systems - Product stands in which all trees are of about the same age. (A spread of 10 to 20 years is generally considered one age class). Cutting methods producing even-aged stands are clearcut, shelterwood, or seed tree systems.

Even-flow - Maintaining a relatively constant supply of timber from decade to decade.

Extensive grazing Management seeks full utilization of forage assigned to livestock. Cost-effective management systems and techniques, including fencing and water development, are designed and applied to obtain relatively uniform livestcok distribution and use of forage and maintain plant vigor.

Facilities - Transportation planning, road management and operation, fleet equipment, and engineering services (for example, administrative buildings, water and sanitation systems, sanitary landfills, dams, bridges, and communication systems).

Facility condition class - The rating system used in the Recreation Information Management System to classify the condition of repair that a specific facility is in and maintenance needs of recreation sites and areas. Used for planning and budget requests.

Fee ownership - Ownership of property that has no limitation, qualification, or condition affecting it and is the maximum possible ownership in real estate under the system of property rights founded on English common law.

Fee purchase - Acquisition of fee ownership to a piece of property.

Fee site - A Forest Service recreation area in which users must pay a fee. Fee sites must meet certain standards and provide certain facilities as specified in the Forest Service Manual.

Final cut - Removal of the last seed bearers or shelter trees after regeneration is considered to be established under a shelterwood system.

Fire hazard - The fuel in which a fire will ignite and burn.

Fire management - All activities required for protection of resources from fire and the use of fire to meet land management goals and objectives.

Fire risk - The potential cause of a fire.

Fisheries habitat - Streams, lakes, and reservoirs that support fish.

Flood plains - The lowland and relatively flat area adjoining inland waters, including, at a minimum, that area subject to a one percent or greater chance of flooding in any given year.

Forage - All browse and nonwoody plants that are available to wildlife for grazing or harvested for feeding.

Forage/cover ratio - The ratio of cover areas (defined as certain timber strata) to non-cover areas of the Forest.

Forest and Rangeland Renewable Resources Planning Act of 1974 - An Act of Congress requiring the preparation of a program for the management of the National Forests' renewable resources and of land and resource management plans for units of the National Forest System. It also requires a continuing inventory of all National Forest System lands and renewable resources.

Forest land - Land at least 10 percent occupied by forest trees of any size or formerly having had such tree cover and not currently developed for nonforest use. Lands developed for nonforest use includes areas for crops, improved pasture, residential, or adminstrative areas; improved roads of any width, and adjoining road clearing and powerline clearing of any width. The term "occupancy," when used to define forest land, will be measured by canopy cover of live forest trees at maturity. The minimum area for classification of forest land is one acre. Unimproved roads, trails, streams, and clearings in forest areas are classified as forest if they are less than 120 feet wide.

Foreground - A term used in visual management to describe the landscape immediately adjacent to the high-value scenic area, recreation facility, or forest highway.

Forest development roads and trails - A legal term for Forest roads or trails that are under the management of the Forest Service.

Forest Supervisor - The official responsible for administering the National Forest System lands in a Forest Service administrative unit, which may consist of two or more National Forests or all the Forests within a state. He reports to the Regional Forester.

Forest system roads - Roads that are part of the Forest development transportation system, which includes all existing and planned roads as well as other special and terminal facilities designated as Forest development transportation facilities. (See arterial roads, collector roads, and local roads.)

FORPLAN - A linear programing system used for developing and analyzing Forest planning alternatives.

Fuel break - A zone in which fuel quantity has been reduced or altered to provide a position for suppression forces to make a stand against wild fire. Fuel breaks are designated or constructed before the outbreak of a fire. Fuel breaks may consist of one or a combination of the following: natural barriers, constructed fuel breaks, manmade barriers.

Fuel model - A simulated fuel complex for which all the fuel descriptions required by the mathematical fire spread model have been specified.

Fuel treatment - The rearrangement or disposal of natural or activity fuels to reduce the fire hazard. Fuels are defined as both living and dead vegetative materials consumable by fire.

Fuels - Include both living plants and dead, woody vegetative materials which are capable of burning.

Fuels management - The practice of planning and executing treatment or control of any vegetative material that adversely affects meeting fire management direction based upon resource management goals and objectives.

Full-service management - The management, administration, operation, and maintenance of developed sites (except VIS) to established standards and management objectives for public service and use. Management objectives are based on site capacity, site protection needs, seasonal demands for public use, and desired levels of service to enhance the visitor's experience and convenience and provide optimum maintenance.

Further Planning Areas - These are Roadless Areas identified in the Roadless Area Review and Evaluation for future wilderness study.

Game species - Any species of wildlife or fish for which seasons and bag limits have been prescribed and which are normally harvested by hunters, trappers, and fishermen under state or Federal laws, codes, and regulations.

General Aquatic Wildlife System (GAWS) - Wildlife inventory, evaluation data storage system to predict aquatic habitat conditions and the vulnerability of habitats to impact.

Goal - A concise statement that describes a desired condition to be achieved sometime in the future. It is normally expressed in broad, general terms and is timeless in that it has no specific date by which it is to be completed. Goal statements form the principal basis from which objectives are developed.

Goods and services - The various outputs, including on-site uses, produced from forest and rangeland resources.

Grass/forb - An early Forest successional stage where grasses and forbs are the dominant vegetation.

Group selection cutting - The cutting method that describes the silvicultural system in which trees are removed periodically in small groups, resulting in openings that do not exceed an acre or two in size. This leads to the formation of an uneven-aged stand in the form of a mosaic of age-class groups in the same forest.

Growing season - The months of the year during which a species of vegetation grows.

Guideline - An indication or outline of policy or conduct; i.e., any issuance that assists in determining the course of direction to be taken in any planned action to accomplish a specific objective.

Habitat - The place where a plant or animal naturally or normally lives or grows.

Habitat diversity index - A measure of habitat diversity improvement expressed as a percentage of optimum size class distribution that is achieved over time.

Habitat grouping - Grouping of habitat types in logical categories to facilitate resource planning.

Habitat type - The aggregate of all areas that support or can support the same primary vegetation at climax.

Hiding cover - Vegetation that will hide 90 percent of an elk from the view of a human at a distance of 200 feet or less. The distance at which the animal is essentially hidden is called a "sight distance."

Horizontal diversity - The distribution and abundance of different plant and animal communities or successional stages across an area of land; the greater the number of communities, the higher the degree of horizontal diversity.

Identifier - A characteristic that helps define an analysis area. Identifiers for analysis areas on the Toiyabe NF include capability zone, timber working group, road cost zone, timber condition class, etc.

Implementation - Those activities necessary to respond to the approved Land and Resource Management Plan.

Incidental grazing - Grazing use that occurs on lands not managed for the production of domestic livestock. May occur as a result of natural herd movement, trailing of livestock, or the use of domestic livestock in recreation.

Indeterminate stands - A group of trees of similar age and species composition that has been invaded by other tree species to the point where the original group has lost its identify as a discrete unit.

Indirect outputs - Outputs caused by the action but which are later in time or farther removed in distance, although still reasonably foreseeable.

Individual (single) tree selection - The cutting method that describes the silvicultural system in which trees are removed individually, here and there, each year over an entire forest or stand. The resultant stand usually regenerates naturally and becomes all-aged.

Induced outputs - Outputs in the private sector induced by the direct outputs produced on the Forest.

Indicator species - A plant or animal species adapted to a particular kind of environment. Its presence is sufficient indication that specific habitat conditions are also present.

Input/output analysis - A quantitative study of the interdependence of a group of activities based on the relationship between inputs and outputs of the activities. The basic tool of analysis is an input-output model for a given period that shows simultaneously for each economic sector the value of inputs and outputs, as well as the value of transactions within each economic sector. It has especially been applied to estimate the effects of changes in Forest output levels on local economic activity.

Instream flows - A prescribed level (or levels) of streamflow, usually expressed as a stipulation in a permit authorizing a dam or water diversion for the purpose of meeting National Forest System management objectives.

Integrated pest management - A process for selecting strategies to regulate forest pests in which all aspects of a pest-host system are studied and weighed. The information considered in selecting appropriate strategies includes the impact of the unregulated population on various resource values, alternative regulation tactics and strategies and benefit/cost estimates of those alternative strategies. Regulatory strategies are based on sound silvicultural practices and ecology of the pest-host system and consist of a combination of tactics such as timber stand improvement plus selective use of pesticides.

Intensity - Indicates the number of timber stnad entries, or for areas without timber harvest, indicates the level of investment undertaken.

Intensive grazing - Grazing management that controls distribution of cattle and duration of use on the range, usually by fences, so parts of the range are rested during the growing season.

Intensive management - A high investment level of timber management that includes use of precommercial thinnings, commercial thinnings, genetic ally improved stock, and control of competing vegetation.

Interdisciplinary approach - The utilization of individuals representing two or more areas of knowledge and skills focuing on the same task, problem, or subject. Team member interaction provides necessary insight to all stages of the process.

Intermediate cutting - Any removal of trees from a stand between the time of its formation and the regeneration cut. Most commonly applied intermediate cuttings are release, thinning, improvement, and salvage.

Intermittent streams - A stream which flows only at certain times of the year when it receives water from springs or from some surface source such as melting snow in mountainous areas.

Intermountain Region - That part of the National Forest System which encompasses National Forests within the Intermountain Region (Utah, southern and central Idaho, western Wyoming, and Nevada).

Interpretive services - Visitor information services designed to present educational and recreational values to Forest visitors to enhance their understanding, appreciation, and enjoyment of the Forest.

Inventory data and information collection - The process of obtaining, storing, and using current inventory data appropriate for planning and managing the Forest.

Irretrievable - Applies to losses of production, harvest, or commitment of renewable natural resources. For example, some or all of the timber production from an area is irretrievably lost during the time an area is used as a winter sports site. If the use is changed, timber production can be resumed. The production lost is irretrievable, but the action is not irreversible.

Irreversible - Applies primarily to the use of nonrenewable resources, such as minerals or cultural reosurces, or to those factors that are renewable only over long time spans, such as soil productivity. Irreversible also includes loss of future options.

Issue - A point, matter, or question of public discussion or interest to be addressed or decided through the planning process.

Juxtaposition - Relative position of forage, cover, and other important components within a compartment. The following ratings have been developed:

a. Good juxtaposition - Forage and cover sites are well interspersed throughout the landscape. Forage areas are usually less than 1000 feet wide and most cover areas are between 600 and 1200 feet wide.

b. Fair juxtaposition - Forage and cover sites are moderately well-interspersed throughout the landscape.

c. Poor juxtaposition - Forage and cover sites are not well interspersed. Large blocks of either forage or cover are in local areas.

Kuchler vegetation types - Potential natural vegetation of the coterminous United States, classified by Kuchler.

Key winter range - The portion of the year-long range where big game find food and/or cover during severe winter weather.

Land class - The topographic relief of a unit of land. Land classes are separated by slope, which coincides with the timber inventory process. The three land classes used in the Forest Plan are defined by the following slope ranges: 0 to 40 percent; 40 to 60 percent; and greater than 60 percent.

Land exchange - The conveyance of non-Federal land or interests in the United States in exchange for National Forest System land or interests in land.

Land Systems Inventory (LSI) - A land stratification system based on geomorphic principles, described in Thompson and Larson's "Land Systems Inventory, Toiyabe National Forest."

Landtype association - A grouping of landtypes representing the broadest level in the land stratification system. Obvious elements of soils, landform and vegetation are distinguishing factors.

Landing - Any place where round timber is assembled for further transport, commonly with a change of method.

Landline - For Forest Plan purposes, National Forest property boundaries.

Landline location - Legal identification and accurate location of National Forest property boundaries.

Landtype - Visually identifiable unit areas resulting from homogeneous geomorphic and climatic process and having defined patterns of soils and vegetative potentials.

Late Forest succession - A stage of Forest succession where the majority of trees are mature or overmature.

Landownership pattern - The National Forest System resource land base in relation to other landownerships within given boundaries.

Leasable minerals - Coal, gas, oil, phosphate, sodium, potassium, oil shale, sulphur and geothermal steam.

Level IV Law Enforcement Officer - A Forest Service employee who has graduated from the Federal Law Enforcement Academy and holds a law enforcement commission signed by the Regional Forester. District Level IV officers generally perform other duties as well as law enforcement.

Locatable minerals - Those hardrock minerals which are mined and processed for the recovery of metals.

Linear programming - A mathematical method used to determine the cost-effective assignment of limited resources between competing demands when both the objective; e.g., profit or cost, and the restrictions on its attainment are expressible as a system of linear equalities or inequalities.

Local dependent industries - Industries relying on National Forest outputs for economic activity.

Local roads - Roads constructed and maintained for, and frequented by, the activities of a given resource element. Some use may be made by other element activities, but normally maintenance is not affected by such use. These roads connect terminal facilities with Forest collector or Forest arterial roads or public highways. The location and standard are usually determined by the requirements of a specific resource activity rather than by travel efficiency. Forest local roads may be developed and operated for either constant or intermittent service, depending on land use and resource management objectives for the area served by the facility.

Logging residues - The unused portions of poletimber and sawtimber trees remaining after logging.

Long-term sustained yield timber capacity - The highest uniform wood yield from lands being managed for timber production that may be sustained under a specified management intensity consistent with multiple-use objectives.

Maintenance level - Low level of management; activities are limited to those that provide for public safety, those that prevent environmental damage to downstream or adjoining lands and resources, those necessary to administer existing and new special uses, and those necessary to protect soil and water resources and land productivity.

Management area - An area of land with similar management goals and a common management prescription.

Management concern - An issue, problem, or a condition which constrains the range of management practices identified by the Forest Service in the planning process.

Management direction - A statement of multiple-use and other goals and objectives, the associated management prescriptions, and standards and guidelines for attaining them.

Management indicator species - A species selected because its population changes indicate effects of management activities on the plant and animal community. A species whose condition can be used to assess the impacts of management actions on a particular area.

Management practice - A specific activity, measure, course of action, or treatment.

Management prescription - Management practices and intensity selected and scheduled for application on a specific area to attain multiple-use and other goals and objectives.

Mature timber - Trees that have attained full development, particularly height, and are in full seed production.

Market-value outputs - Goods and services valued in terms of what people are willing to pay for them, as evidenced by market transactions.

Maximum modification - A visual quality objective. Human activity may dominate the characteristic landscape, but should appear as a natural occurrence when viewed as background.

Mean annual increment of growth - The total increase in girth, diameter, basal area, height, or volume of individual trees, or a stand up to a given age divided by that age.

Middleground - The visible terrain beyond the foreground where individual trees are still visible but do not stand out distinctly from the stand.

Mineral development - The preparation of a proven deposit for mining.

Mineral entry - The filing of a mining claim for public land to obtain the right to any minerals it may contain.

Mineral entry withdrawal - The exclusion of the right of exclusive possession by the locator, of locatable mineral deposits and mineral development work on areas required for administrative sites by the Forest Service and other areas highly valued by the public. Public lands withdrawn from entry under the general mining laws and/or the mineral leasing laws.

Mineral exploration - The search for valuable minerals on lands open to mineral entry.

Mineral production - Extraction of mineral deposits.

Mineral soil - Weathered rock materials without any vegetative cover.

Minimum streamflows - A specified level of flow through a channel that must be maintained by the users of streams for biological, physical, or other purposes.

Mining claims - That portion of the public estate held for mining purposes in which the right of exclusive possession of locatable mineral deposits is vested in the locator of a deposit.

Mitigation - Actions to avoid, minimize, reduce, eliminate, or rectify the impact of a management practice.

Model - A representation of reality used to describe, analyze, or understand a particular concept. A "model" may be a relatively simple qualitative description of a system or organization, or a highly abstract set of mathematical equations.

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Modification - A visual quality objective; man's activity may dominate the characteristic landscape but must concurrently use natural established form, line, color and texture. Activities should appear as natural occurrences when viewed in foreground or middleground.

Monitoring and evaluation - The periodic evaluation on a sample basis of Forest Plan management practices to determine how well objectives have been met and how closely management standards have been applied.

Mortality - Trees of commercial species, standing or down, that have died during a specified period, and were not cull trees at the time of death.

Mountain Pine Beetle - A tiny black insect, ranging in size from 1/8 to 3/4 inch, that bores its way into the tree's cambium and cuts off its supply of food, thus killing the tree.

Multiple Use - The management of all the various renewable surface resources of the National Forest System so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some lands will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.

National Environmental Policy Act (NEPA) - An Act to declare a National policy which will encourage productive and enjoyable harmony between man and his environment, to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man, to enrich the understanding of the ecological systems and natural resources important to the Nation and to establish a Council on Environmental Quality.

National Forest Land and Resource Management Plan - A Plan developed to meet the requirements of the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended, that guides all natural resource management activities and establishes management standards and guidelines for the National Forest System lands of a given National Forest.

National Forest landscape management system - The art and science of planning and administering the use of Forest lands in such ways that the visual effects maintain or upgrade man's psychological welfare. It is the planning and design of the visual aspects of multiple-use land management.

National Forest Management Act (NFMA) - A law passed in 1976 as an amendment to the Forest and Rangeland Renewable Resources Planning Act requiring the preparation of Regional Guides and Forest Plans and the preparation of regulations to guide that development.

National Forest System (NFS) lands - National Forests, National Grasslands, or purchase units, and other lands under the management of the Forest Service, including experimental areas and Bankhead-Jones Title III lands.

National Recreation Trails - Trails designated by the Secretary of the Interior or the Secretary of Agriculture as part of the National system of trails authorized by the National Trails System Act. National Recreation Trails provide a variety of outdoor recreation uses in or reasonably accessible to urban areas.

National Register of Historic Places - A listing (maintained by the U.S. National Park Service) of areas which have been designated as being of historical significance. The Register includes places of local and state significance as well as those of value to the Nation.

National Wilderness Preservation System - All lands covered by the Wilderness Act and subsequent Wilderness designations, irrespective of the department having jurisdiction.

Natural barrier - A natural feature that will restrict livestock movements, such as a dense stand of trees or downfall.

Natural catastrophic condition - A significant change in Forest conditions on the area that affects Forest Plan resource management objectives and their projected and scheduled outputs, uses, costs, and impacts on local communities and environmental quality.

Net public benefits - An expression used to signify the overall long-term value to the nation of all outputs and positive effects (benefits) less all associated inputs and negative effects (costs) whether they can be quantitatively valued or not. Net public benefits are measured by both quantitative and qualitative criteria rather than a single measure or index. The maximization of net public benefits to be derived from management of units of the National Forest System is consistent with the principles of multiple use and sustained yield.

No-action alternative - The most likely condition expected to exist in the future if current management direction were to continue unchanged.

Noncommercial forest land - Sites incapable of producing 20 cubic feet per acre per year or more of timber for industrial wood. This would include areas which are rocky, dry, steep, cliffy, or sterile soils, e.g.: slickrock country that has vegetation.

Noncommercial vegetative treatment - The removal of trees for other than timber production purposes.

Noncommodity outputs - Resource outputs that cannot be bought and sold.

Nonconsumptive use - That use of a resource that does not reduce the supply. For example, nonconsumptive use of water includes hydroelectric power generation, boating, swimming, and fishing.

Nondeclining flow - The principle expressed by the definition of the base sale schedule.

Nonforest land - Lands never having or incapable of having greater than 10 percent of the area occupied by forest trees, and lands formerly forested and currently developed for nonforest use.

Nongame - Species of animals which are not managed for sport hunting.

Nonpoint source pollution - Sources of pollution that are diffuse in origin, their transportation into receiving water not well defined or constant, their discharge occurring at many diffuse locations, and depending heavily on weather conditions such as rainstorms or snowmelt. Pollution from Forest management is of this type.

Nonmarket valued outputs - Goods and services not generally traded in the marketplace, but valued in terms of what reasonable people would be willing to pay for them rather than go without. Those obtaining the actual outputs do not necessarily pay what they would be willing to pay for them.

Notice of Intent - Written notice to the affected District Ranger, by those who intend to engage in mining activity on the Forest, of proposed prospecting, exploration, mining, and mineral processing activities. Also, a notice in the Federal Register of intent to prepare an Environmental Impact Statement on a proposed action.

Noxious weeds - A plant species that is undesirable. It conflicts, restricts, or otherwise causes problems with management objectives.

Nursery areas - Areas used for cover and forage by elk cows and calves until the calves are approximately six weeks old. These areas may be the same as calving areas or far removed from where birth occurred.

Objective - A concise, time-specific statement of measurable planned results that respond to preestablished goals. An objective forms the basis for further planning to define the precise steps to be taken and the resources to be used in achieving identified goals.

Occupancy trespass - The illegal occupation or possession of National Forest land or property.

Off-road vehicle (ORV) - Vehicles such as motorcycles, all-terrain vehicles, four-wheel drive vehicles, and snowmobiles.

Old growth - A stand of trees that is past full maturity and showing decadence; the last stage in forest succession.

Old growth habitat - Habitat for certain wildlife that is characterized by overmature coniferous forest stands with large snags and decaying logs.

Oligotrophic - Lakes having low nutrient supplies which are poor producers of organic matter.

Open road density - Miles of road per square mile of elk habitat which has not been administratively or physically closed to motor vehicles during the time elk occupy an area. This is calculated for forage and cover areas by compartment.

Operational costs - Those costs associated with administering and maintaining National Forest facilities and resource programs.

Operational Plan - A written document approved by the Forest Supervisor which provides specifically, at the project level, for implementation of the management direction established in the Forest Plan.

Opportunity - A statement of general actions, measures, or treatments that address a public issue or management concern in a favorable way.

Optimum - A level of production that is consistent with other resource requirements as constrained by environmental, social, and economically sound conditions.

Outputs - The goods, services, products, and concerns which are measurable and capable of being used to determine the effectiveness of programs and activities in meeting objectives. Goods, end products, or services that are purchased, consumed, or utilized directly by people. A broad term for describing any result, product, or service that a process or activity actually produces.

Overflow camping - Developed site camping that occurs in excess of designed site capacity.

Overmature timber - Trees that have attained full development, particularly in height, and are declining in vigor, health, and soundness.

Overstory - That portion of the trees, in a Forest or more than one story, forming the upper or uppermost canopy.

Partial retention - A visual quality objective; man's activities may be evident but subordinate to the characteristic landscape.

Particulates - Small particles suspended in the air and generally considered pollutants.

Patented mining claim - A patent is a document which conveys title to land. When patented, a mining claim becomes private property and is land over which the United States has no property rights, except as may be reserved in the patent. After a mining claim is patented, the owners does not have to comply with requirements of the General Mining Law or implementing regulations.

Payment in lieu of taxes - Payments to local or state governments based on ownership of Federal land and not directly dependent on production of outputs or receipt sharing. Specifically, they include payments made under the Payments in Lieu of Taxes Act of 1976 by U.S. Department of the Interior.

Personal use - Normally used to describe the type of permit issued for removal of wood products (firewood, post, poles, and Christmas trees) from National Forest land when the product is for home use and not to be resold for profit.

Persons-at-one-time (PAOT) - A recreation capacity measurement term indicating the number of people who can use a facility or area at one time.

Person-year - Approximately 2,080 working hours. May be filled by one person working year long or several people filling seasonal positions.

Planned ignitions - A fire started by a deliberate management action.

Planning area - The area of National Forest land covered by a Regional Guide or Forest Plan.

Planning corridor - A general broad linear area of land used to evaluate where a specific right-of-way could be placed.

Planning criteria - Standards, tests, rules, and guidelines by which the planning process is conducted and upon which judgments and decisions are based.

Planning period - The 50-year time frame (1980-2030) for which goods, services, and effects were projected in the development of the Forest Plan.

Planning questions - A major policy question of long-range significance, derived from the public issues and management concerns, to be decided when selecting among alternative Forest Plans.

Planning records - A system that records decisions and activities which result from the process of developing a Forest Plan, revision, or significant amendment.

Pole/sapling - A Forest successional stage in which trees between 5- and 7-inch diameter are the dominant vegetation.

Pole timber - Line trees of at least 5 inches in diameter at breast height, but smaller than the minimum utilization standard for sawtimber.

Policy - A guiding principle which is based on a specific decision or set of decisions.

Practices - Those management activities that are proposed or expected to occur.

Precommercial thinning - The practice of removing some of the trees less than merchantable size from a stand so that the remaining trees will grow faster.

Predator - One that preys, destroys, or devours--usually an animal that lives by preying on other animals.

Preparatory cut - The removal of trees near the end of a rotation, which permanently opens the canopy and enables the crowns of seed bearers to enlarge, to improve conditions for seed production and natural regeneration. Typically done in the shelterwood system.

Prescribed fire - A wildland fire burning under specified conditions which will accomplish certain planned objectives. The fire may result from either planned or unplanned ignitions. Plans for use of unplanned ignitions for this purpose must be approved by the Regional Forester.

Preservation - A visual quality objective that allows for only ecological changes.

Presuppression - Activities organized in advance of fire occurrence to assure effective suppression action.

Primitive recreation - Those recreation activities which occur in areas characterized by an essentially unmodified natural environment of fairly large size.

Primitive roads - Roads constructed with no regard for grade control or designed drainage, sometimes by merely repeatedly driving over an area. These roads are single lane, usually with native surfacing and sometimes passable with four-wheel-drive vehicles only, especially in wet weather.

Productive Forest lands - Used under previous timber classification; Forest lands that are capable of producing crops of industrial wood and have not been reserved or deferred.

Production potential - The capability of the land or water to produce a given resource.

Program - When capitalized, the Renewable Resource Program required by the RPA. Generally, sets of activities or projects with specific objectives, defined in terms of specific results and responsibilities for accomplishment.

Program Budget - The fiscal planning document for estimating short- and long-range dollar needs by program area.

Program development and budgeting - The process by which activities for the Forest are proposed and funded.

Programmed harvest - The part of the potential yield that is scheduled for harvesting. It is based on current demand, funding, and multiple use considerations.

Project design - The process of developing specific information related to location, timing, activities, accountability, and control that result in the achievement of an objective or desired future condition.

Projects - Work schedule prescribed for a project area to accomplish management prescriptions. Projects can be for operation maintenance and protection (OMP) or for investment purposes. OMP projects are for ongoing work and are generally considered 1 year at a time. Investments can be of multiyear duration. A project is organized for managerial convenience, and is described by location, activities, outputs, effects, work force, dollars, time, and responsibility for execution.

Proper use criteria - The limiting factor or factors which will be measured on a particular site. It could be percent utilization of forage, percent ground cover, percent trampling damage, a measure of the allowable impact on other resources or uses, or any other measureable factor on a particular site.

Proposed action - In terms of the National Environmental Policy Act, the project, activity, or decision that a Federal agency intends to implement or undertake.

Public access - Usually refers to a road or trail route over which a public agency claims a right-of-way for public use.

Public issue - A subject or question of widespread public interest relating to management of the National Forest System.

Public participation - Meetings, conferences, seminars, workshops, tours, written comments, responses to survey questionnaires, and similar activities designed and held to obtain comments from the public about Forest Service planning.

Quad maps - Standard U.S. Geological Survey quadrangle maps.

Range - Land producing native forage for animal consumption and lands that are revegetated naturally or artificially to provide forage cover that is managed like native vegetation.

Range allotment - An area designated for use of a prescribed number and kind of livestock under one management plan.

Range condition - The state of health of the range based on what it is naturally capable of producing.

Ranger District - Administrative subdivisions of the Forest supervised by a District Ranger who reports to the Forest Supervisor.

Raptor - Bird of prey with a strong notched beak and sharp talons, such as the eagle, hawk, owl, etc.

Real dollar value - A monetary value that compensates for the effects of inflation.

Record of Decision - A document separate from but associated with an Environmental Impact Statement that publicly and officially discloses the responsible official's decision on which alternative assessed in the Environmental Impact Statement to implement.

Recreation capacity - The number of people that can take advantage of the recreation opportunity at any one time without substantially diminishing the quality of the experience sought after.

Recreation experience level - A classification (using a 1 to 5 scale) of the level of development in camp and picnic sites as to the types of recreation opportunities and modifications to the environment that can be expected.

Recreation Information Management (RIM) - The Forest Service system for recording recreation facility condition and use.

Recreation management area - An area of several thousand acres where the management emphasis is on recreation and where there is direction given to establish a Recreation Area Management Plan.

Recreation opportunity - Availability of a real choice for a user to participate in a preferred activity within a preferred setting, in order to realize those satisfying experiences which are desired.

Recreation Opportunity Spectrum (ROS) - A method of measuring the ability of the Forest land to meet the various types of demands imposed by a variety of recreation uses. Provides a framework for defining types of outdoor recreation; expressed by three principal components - the activity opportunity, the setting opportunity, and the experience opportunity. ROS classes are Primitive, Semi-Primitive Nonmotorized, Semi-Primitive Motorized, Roaded Natural, Rural.

Recreation visitor day (RVD) - Twelve visitor hours, which may be aggregated continuously, intermittently, or simultaneously by one or more persons.

Reduced service management - Management of developed recreation facilities below optimum maintenance standards. The administration, operation, and maintenance of developed sites (except VIS) at a level below established standards and management objectives.

Reforestation - The natural or artificial restocking of an area with forest trees.

Regeneration - The renewal of a tree crop, whether by natural or artificial means. Also, the young crop itself, which commonly is referred to as reproduction.

Region - For Regional planning purposes, the standard administrative Region of the Forest Service, administered by the official responsible for preparing a Regional Guide.

Regional Forester - The official responsible for administering a single Region.

Regional Guide - The guide developed to meet the requirements of the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended, that guides all natural resource management activities and establishes management standards and guidelines for the National Forest System lands of a given Region. It also disaggregates the RPA objectives assigned to the Region to the Forests within that Region.

Regulations - Generally refers to the Code of Federal Regulations, Title 36, Chapter II, which covers management of the Forest Service.

Rehabilitation - A short-term management activity used to return visual impacts in the natural setting to a desired visual quality.

Removal cut (final cut) - The removal of the last seed bearers or shelter trees after regeneration is established under a shelterwood method.

Research Natural Areas - An area in as near a natural condition as possible which exemplifies typical or unique vegetation and associated biotic, soil, geologic, and aquatic features. The area is set aside to preserve a representative sample of an ecological community primarily for scientific and educational purposes; commercial and general public use is not allowed.

Residual stand - The trees remaining standing after some event such as selection cutting.

Resource allocation model - A mathematical model using linear programing which will assign land to prescriptions and schedule implementation of those prescriptions simultaneously. The purpose of the model is to find a schedule and assignment that meets the goals of the Forest and optimizes some objective function such as "minimize costs."

Resource element - A major Forest Service mission-oriented endeavor which fulfills statutory or executive requirements and compromises a collection of activities from the various operating programs required to accomplish the mission. The eight resource elements are: recreation, wilderness, wildlife and fish, range, timber, water, minerals, and human and community development.

Resource Management Plan - A Plan developed prior to the Forest Plan that outlines the activities and projects for a particular resource element independently of considerations for other resources. Such Plans are superseded by the Forest Plan.

Resource Value Rating - Measure of range condition based composite rating of vegetations and soils.

Responsible official - The Forest Service employee who has been delegated the authority to carry out a specific planning action.

Retention - A visual quality objective; a condition in which man's activities are not evident to the casual forest visitor.

Right-of-way - An accurately located strip of land with defined width, point of beginning, and point of ending; the area within which the user has authority to conduct operations approved or granted by the landowner in an authorizing document, such as a permit, easement, lease, license, or Memorandum of Understanding.

Riparian - Areas of land that are directly influenced by water. Riparian areas usually have visible vegetative or physical characteristics reflecting this water influence. Stream sides, lake borders, or marshes are typical riparian areas.

Riparian Area Dependent Resource - These are resources that owe their existance to the Riparian Area.

Riparian Area - Geographically delineated areas, with distinctive resource values and characteristics that are comprised of the aquatic and riparian ecosystems, floodplains, and wetlands. They include all areas within a horizontal distance of 100 feet from the edge of perennial streams or other water bodies.

Riparian ecosystems - A transition between the acquatic ecosystem and the adjacent upland terrestrial ecosystem and is identified by soil characteristics and distinctive vegetation communities that require free or unbounded water.

Road - A general term denoting a way for purposes of travel by vehicles greater than 40 inches in width.

Road impact rating - A subjective rating of road use intensity and "out-of-the-vehicle" human activity involved in a compartment.
  a. Low Impact Road - Generally less than 10 vehicles per week and/or little "out-of-the-vehicle" human activity involved.
  b. Moderate Impact Road - Between 10 and 30 vehicles per week and/or moderate "out-of-the-vehicle" human activity involved.
  c. High Impact Road - Greater than 30 vehicles per week and/or moderate "out-of-the-vehicle" human activity involved.

Road maintenance levels - Levels are described as follows:

Level 1. Road normally closed to vehicle traffic.
Level 2. Road open for limited passage of traffic but not normally suitable for passenger cars.
Level 3. Road open for public traffic including passenger cars, but may not be smooth or comfortable.
Level 4. Road suitable for all types of vehicles, generally smooth to travel, and dust may be controlled.
Level 5. Road is smooth and dust free, and the surface is skid resistant if paved.

Roaded Natural - A classification of the recreation opportunity spectrum that characterizes a predominately natural environment with evidence of moderate permanent alternate resources and resource utilization. Evidence of the sights and sounds of man is moderate, but in harmony with the natural environment. Opportunities exist for both social interaction and moderate isolation from sights and sounds of man.

Roadless Area Review and Evaluation II (RARE II) - The national inventory of roadless and undeveloped areas within the National Forest and Grasslands. This refers to the second such assessment, which was documented in the Final Environmental Impact Statement of the Roadless Area Review and Evaluation, January 1979.

Rotation - The planned number of years between the formation of a regeneration of trees and its final cutting at a specified stage of maturity.

Roundwood - Timber and fuelwood prepared in the round state--from felled trees to material trimmed, barked, and crosscut (logs, transmission poles, etc.).

Rural - A recreation opportunity spectrum classification for areas characterized by a substantially modified natural environment. Sights and sounds of man are evident. Renewable resource modification and utilization practices enhance specific recreation activities or provide soil and vegetative cover protection.

Sale schedule - The quantity of timber planned for sale by time period from an area of suitable land covered by a Forest Plan. The first period, usually a decade, of the selected sale schedule provides the allowable sale quantity. Future periods are shown to establish that long-term sustained yield will be achieved and maintained.

Salvage cutting - The exploitation of trees that are dead, dying, or deteriorating because they are overmature or have been materially damaged by fire, wind, insects, fungi, or other injurious agencies, before their timber becomes worthless.

Sanitation cutting - The removal of dead, damaged, or susceptible trees, done primarily to prevent the spread of pests or pathogens and so promote Forest hygiene.

Satisfactory Range Condition - Land that has a resource value rating of 50 or above, or being in a moderate or ecological status and having a stable or upward trend.

Sawtimber - Live trees that equal or exceed the minimum utilization standard for sawtimber.

Scenic areas - Places of outstanding or matchless beauty which require special management to preserve these qualities. They may be established under 36 CFR 294.1 whenever lands possessing outstanding or unique natural beauty warrant this classification.

Scenic easement - An interest in the land of another which allows the easement holder specified uses or rights without actual ownership of the land. In many cases, a scenic easement provides control of the use of land adjacent to public highways, parks, and rivers.

Scoping process - The public land management activities used to determine the range of actions, alternatives, and impacts to be considered in an Environmental Impact Statement.

Second growth - Forest growth that has become established after some interference with the previous Forest crop; e.g., cutting, serious fire, or insect attack.

Security area - Habitat which, because of its size, topography, vegetation, and limited access, is capable of holding elk during periods of stress, particularly during the big-game hunting season.

Sediment - Any material transported, suspended, or deposited by water.

Seed tree cutting - Removal in one cut of the mature timber crop from an area, except for a small number of seed bearers left singly or in small groups.

Seedlings and saplings - Live trees less than 5 inches in diameter at breast height.

Selection cutting - The annual or periodic removal of trees (particularly mature trees), individually or in small groups, from an uneven-aged forest, to realize the yield and establish a new crop or irregular constitution.

Semi-primitive motorized - A classification of the recreation opportunity spectrum characterized by a predominantly unmodified natural environment in a location that provides good to moderate isolation from sights and sounds of man except for facilities/travel routes sufficient to support motorized recreational travel opportunities which present at least moderate challenge, risk, and a high degree of skill testing.

Semi-primitive nonmotorized - A classification of the recreation opportunity spectrum characterized by a predominately unmodified natural environment of a size and location that provides a good to moderate opportunity for isolation from sights and sounds of man. The area is large enough to permit overnight foot travel within the area and presents opportunity for interaction with the natural environment with moderate challenge, risk, and use of a high degree of outdoor skills.

Sensitive species - Plant or animal species which are susceptible or vulnerable to activity impacts or habitat alterations.

Sensitivity analysis - A determination of the effects of varying the level of one or more factors, while holding the other factors constant.

Sensitivity level - A particular degree of measure of viewer interest in scenic qualities of the landscape. Three sensitivity levels are employed, each identifying a different level of user concern for the visual environment.
Level 1 - Highest sensitivity
Level 2 - Average sensitivity
Level 3 - Lowest sensitivity

Shade-intolerant plants - Plant species that do not germinate or grow well in the shade.

Shade-tolerant plants - Plants that grow well in shade.

Shelterwood - The cutting method that describes the silvicultural system in which, in order to provide a source of seed and/or protection for regeneration, the old crop (the shelterwood) is removed in two or more successive shelterwood cuttings. The first cutting is ordinarily the seed cutting, though it may be preceded by a preparatory cutting, and the last is the final cutting. Any intervening cutting is termed removal cutting. An even-aged stand results.

Seral condition - The unique characteristics of a biotic community which is a developmental, transitory stage in an orderly ecologic succession involving changes in species, structure, and community processes with time.

Shrub/seedling - A Forest successional stage in which shrubs and seedling trees are the dominant vegetation.

Sight distance - The distance at which 90 percent or more of a deer or elk is hidden from an observer. Hiding cover exists when 90 percent or more of a standing deer or elk is hidden at a distance of 200 feet or less.

Silvicultural examination - The process used to gather the detailed in-place field data needed to determine management opportunities and direction for the timber resource within a small subdivision of a Forest area such as a stand.

Silvicultural system - A management process whereby Forests are tended, harvested, and replaced, resulting in a Forest of distinctive form. Systems are classified according to the method of carrying out the fellings that remove the mature crop and provide for regeneration and according to the type of Forest thereby produced.

Single-tree selection - See "Individual (single) tree selection."

Site index - A numerical evaluation of the quality of land for plant productivity.

Site preparation - A general term for removing unwanted vegetation, slash, roots and stones from a site before reforestation.

Site productivity - Production capability of specific areas of land.

Size class - For the purposes of Forest planning, size class refers to the intervals of tree stem diameter used for classification of timber in the Forest Plan data base.

- less than 5-inch diameter = seedling/sapling
- greater than 7-inch diameter = sawtimber

Skidding - A loose term for hauling loads by sliding, not on wheels, as developed originally from stump to roadside, deck, skidway, or other landing.

Slash - The residue left on the ground after timber cutting and/or accumulating there as a result of storm, fire, or othr damage. It includes unused logs, uprooted stumps, broken or uprooted stems, branches, twigs, leaves, bark, and chips.

Small game - Birds and small mammals normally hunted or trapped.

Snag - A nonliving standing tree. The interior of the snag may be sound or rotted.

Social analysis - a phase in the Forest planning process which (1) identifies groups (whether formally organized or not) which may be affected by or have an interest in planning decisions; (2) gathers and quantifies (objectively when possible) both the preferences of these groups and the possible effects of proposed alternatives on these groups; (3) evaluates the role of social group preferences and consequences in resource assignment decisions; and (4) determines how a given plan should be formulated (or adjusted) to respond to these evalutions.

Society of American Foresters (SAF) forest and cover types - A forest type is a descriptive term used to group stands of similar character in regards to composition and development due to given ecological factors, by which they may be differentiated from other groups of stands. The term suggests repetition of the same character under similar conditions. A cover type is a forest type now occupying the ground, no implication being conveyed as to whether it is temporary or permanent.

Soil disturbance - The mechanical movement of the top layer of soil downslope as a result of livestock grazing. The movement of this layer of soil not only results in a net loss of topsoil but is very damaging to the plants and ground cover. Damage to the plants is characterized by burying, exposure of roots, uprooting seedlings and young plants, and breaking of the tough surface shield made up of roots and organic matter that gives the site its stability under pristine conditions.

Soil productivity - The capacity of a soil to produce a specific crop such as fiber, forage, etc., under defined levels of management. Productivity is generally dependent on available soil moisture and nutrients and length of growing season.

Soil resource commitment (total and/or essentially total) - A conversion of a productive site to an essentially nonproductive site for a period of more than 50 years. Inadequately restored haul roads, truck roads, landing areas as well as higher standard roads (system or nonsystem), and some stock driveways generally represent an essentially total commitment of the soil resource. Productivity on these areas ranges from 0 to 40% of natural.

Soil surveys - Systematic examinations of soils in the field and in laboratories; such examinations are at differing "orders" and interpretation according to their adaptability for various crops, grasses, and trees; there are five classed orders of surveys, with order 1 being the highest intensity.

Soil Loss Tolerence - Maximum rate of soil erosion that will still permit the maintenance of vegetative productivity to be sustained indefinitely.

Sound wood - Timber that is free from defect, damage, or decay; i.e., in solid, whole, good condition.

Special Use Pastures - Areas of National Forest System land which cannot be logically managed as a grazing allotment or as part of an allotment because of location, size, adjacent ownership, or topography. They provide grazing or holding areas for livestock and may be made available for grazing use at the convenience of the permittee. Special use pastures are usually fenced and may be improved or unimproved. Pastures may be seeded to high quality native or introduced forage species and undesirable species may be controlled by various means.

Special Use Permit - A permit issued under established laws and regulations to an individual, organization, or company for occupancy or use of National Forest land for some special purpose.

Spring break-up - The time of year when roads break up due to melting frost and ice, generally from the first of March to the middle of April.

Stand (tree stand) - An aggregation of trees or other vegetation occupying a specific area and sufficiently uniform in composition (species), age arrangement, and condition as to be distinguishable from the Forest or other vegetation or other land cover on adjoining areas.

Stand examination surveys - Procedures consisting of seven types of surveys used to collect data on Forest stands. Types 1 through 4 are conducted by using intensive specified standard procoedures. Types 5 through 7 are less intensive examinations consisting of modifications to procedures used in Type 1 through 4 surveys.

Stand size class - A classification of forest land based on the predominant size of trees present; that is, sawtimber, poletimber, seedling-sapling.

Standard and Guideline - Principles specifying conditions or levels to be achieved.

State Air Quality Regulations - The legal base for control of air pollution sources in that state. Prescribed burning is generally covered under these regulations.

State Implementation Plan - A State Plan that covers implementation, maintenance, and enforcement of primary and secondary standards in each air quality control region, pursuant to Section 110 of the Clean Air Act.

Strategic minerals - Those minerals of which the U.S. imports 50 percent of more from foreign sources (based on 1978 U.S. Bureau of Mines figures).

Stratification - A land use planning concept which subdivides a study area into units which contain the same characteristics.

Stream - A water course having a distinct natural bed and banks; a permanent source which provides water at least periodically; and at least periodic or seasonal flows at times when other recognized streams in the same area are flowing.

Successional stage - A stage or recognizable condition of a plant community that occurs during its development from bare ground to climax; for example, coniferous forests commonly progress through six recognized stages: grass-forb; shrub-seedling; pole-sapling; young; mature; old growth.

Suitability - The appropriateness of applying certain resource management practices to a particular area of land, as determined by an analysis of the economic and environmental consequences and the alternative uses foregone. A unit land may be suitable for a variety of individual or combined management practices. See also "Timber classification."

Suitability analysis - Process of identifying lands to be managed for timber production. Stage 1 identifies the biologically capable, administratively available, and technically suitable lands. Stage II consists of an economic analysis of costs and benefits of timber management on the lands identified in Stage I. Stage III provides the final assignment of suitable lands based on Forest objectives and economic efficiency. Stages II and III are completed with the FORPLAN model.

Suitable Forest land - Lands assigned to timber management as a result of the three-stage suitability analysis.

Supply - A schedule of the quantity of a product or Forest output that will be produced at various prices.

Supply potential - The output production possible from the available resources.

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Suppression - An act extinguishing or confining fire.

Surface resources - Renewable resources located on the earth's surface in contrast to ground water and mineral resources located below the earth's surface.

Sustained yield of products and services - The achievement of maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the National Forest without impairment of the productivity of the land.

Targets - A quantifiable output. Assignments made to the Forest by the Regional Forester.

Technically suitable Forest land - Land for which technology is available that will ensure timber production without irreversible resource damage to soils, productivity, or watershed conditions. There is reasonable asurance that such lands can be adequately restocked as provided in 36 CFR 219.13 (h)(3).

Temporary road - A road that will be physically obliterated and seeded after its primary use is completed; i.e., spur road for logging.

Thermal cover - Cover used by animals to ameliorate effects of weather; for elk, a stand of coniferous trees 40 feet or taller with an average crown closure or 70 percent or more.

Thinning - A felling made in an immature stand primarily to maintain or accelerate diameter increment and also to improve the average form of the remaining trees without permanently breaking the canopy. An intermediate cutting.

Threatened species - Those plant or animal species likely to become endangered species throughout all or a significant portion of their range within the foreseeable future.

Tiering - Refers to the coverage of general matters in broader Environmental Impact Statments (such as National program or policy statements) with subsequent narrower statements or environmental analyses (such as Regional or Basin-wide program statements or ultimately site-specific statements) incorporating, by reference, the general discussions and concentrating solely on the issues specific to the statement subsequently prepared.

Timber base - The lands within the Forest capable, available, and suitable for timber production.

Timber harvest schedule - See "Sale schedule."

Timber production - The purposeful growing, tending, harvesting, and regeneration of regulated crops of trees to be cut into logs, bolts, or other round sections for industrial or consumer use. For purposes of Forest planning, the term "timber production" does not include production of fuelwood or harvest of unsuitable lands.

Timber stand improvement (TSI) - Measures such as thinning, pruning, release cutting, prescribed fire, girdling, weeding, or poisoning of unwanted trees aimed at improving growing condition of the remaining trees.

Tractor logging - Any logging method which uses a tractor as the motive power for transporting logs from the stumps to a collecting point--whether by dragging or carrying the logs.

Tradeoff Evaluation Process (TEP) - A process whereby factors, issues, elements, etc., are evaluated with regard to the tradeoffs that would occur.

Trail maintenance level - One of the categories outlined in the Management Information Handbook describing the type and intensity of maintenance for trails.

Transitory range - Land that is suitable for grazing use of a nonenduring nature over a period of time. For example, on particularly disturbed lands, grass may cover the area for a period of time before being replaced by trees or shrubs not suitable for forage.

Travel management - The administrative decisions on the location and timing of road and trail closures.

Treatment area - The site-specific location of a resource improvement activity.

Tree opening - An opening in the forest cover created by the application of even-aged silvicultural practices.

Type conversion - The conversion of the dominant vegetation in an area from forested to nonforested or from one tree species to another.

Understory - The trees and other woody species growing under a more-or-less continuous cover of branches and foliage formed collectively by the upper portion of adjacent trees and other woody growth.

Uneven-aged management - The application of a combination of actions needed to simultaneously maintain continuous high-forest cover, recurring regeneration of desirable species, and the orderly growth and development of trees through a range of diameter or age classes to provide a sustained yield of forest products. Cutting is usually regulated by specifying the number or proportion of trees of particular sizes to retain within each area, thereby maintaining a planned distribution of size classes. Cutting methods that develop and maintain uneven-aged stands are single tree selection and group selection.

Uneven-aged silviculture systems - The combination of action that results in the creation of forests or stands of trees, in which trees of several or many ages grow together. Cutting methods that develop and maintain uneven-aged stands are individual tree and group selecting cutting methods:

Individual tree selection cutting. The removal of selected trees of all size classes on an indiviudal basis.

Group selection cutting. The removal of selected trees of all size classes in groups of a fraction or an acre up to two or three acres in size.

Unpatented mining claim - See "Mining claim."

Unplanned ignition - A fire started at random by either natural or human causes, or a deliberate incendiary fire.

Unregulated harvest - This harvest is not charged against the allowable sale quantity, and includes occasional volumes removed that were not recognized in calculations of the allowable sale quantity, such as cull or dead material and noncommercial species and products. It also includes all volume removed from nonsuitable areas. Harvests from nonsuitable areas will be programed as needed for objectives such as research on experimental Forests, to meet multiple use objectives other than timber production, and for improvement of administrative sites.

Unsuitable forest lands - Forest land that is not managed for timber production because: (1) the land has been withdrawn by Congress, the Secretary of Agriculture, or Chief of the Forest Service; (2) technology is not available to prevent irreversible damage to soils, productivity, or watershed conditions; (3) there is no reasonable assurance that lands can be adequately restocked within five years after final harvest based on existing technology and knowledge; (4) there is presently a lack of adequate information or responses to timber management activities; or (5) timber management is inconsistent with or not cost-efficient in meeting the management requirements and multiple-use objectives specified in the Forest Plan.

Utilization standards - Standards guiding the projection of timber yields and the use and removal of timber. The standards are described in terms of minimum diameter at breast height, minimum length, and percent soundness of the wood, as appropriate.

Variety class - A classification system for establishing three visual landscape categories according to the relative importance of the visual features. This classification system is based on the premise that all landscapes have some visual values, but those with the most variety or diversity of visual featres have the greatest potential for high scenic value.

Vegetative management - Activities designed primarily to promote the health of the Forest cover for multiple-use purposes.

Vertical diversity - The diversity in a stand that results from the complexity of the above-ground structure of the vegetation; the more tiers of vegetation.

Visual absorption capability - The ability of the landscape to conceal evidence of human modifications. Rated as high, moderate, and low.

Viable populations - A number of individuals of a species sufficient to ensure the long-term existence of the species in natural self-sustaining populations adequately distributed throughout their region.

Visitor Information Service (VIS) - Activities which interpret for visitors, in layman's language, Forest management, protection, utilization, and research. It also includes interpreting the local botany, geology, ecology, zoology, history, and archaeology.

Visual quality objective (VQO) - Categories of acceptable landscape alteration measured in degrees of deviation from the natural appearing landscape.

- Retention (R) - Ecological change only here.
- Partial Retention (PR) - Human activities should not be evident to the casual Forest visitor.
- Modification (M) - Human activity may dominate the characteristic landscape but must, at the same time, follow naturally established form, line, color, and texture. It should appear as a natural occurrence when viewed in foreground or middleground.
- Maximum Modification (MM) - Human activity may dominate the characteristic landscape, but should appear as a natural occurrence when viewed as background.
- Enhancement - A short-term management alternative which is done with the express purpose of increasing positive visual variety where little variety now exists.

Visual resource - The composite of basic terrain, geologic features, water features, vegetative patterns, and land use effects that typify a land unit and influence the visual appeal the unit may have for visitors.

Water rights - Rights to divert and use water or to use it in place.

Water yield - The measured output of the Forest's streams.

Water yield increase - Additional water released to the Forest streams as a result of Forest management activities.

Watershed - The entire area that contributes water to a drainage system or stream.

Wetlands - Areas that are inundated by surface or ground water with a frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction.

Wilderness - Areas designated by congressional action under the 1964 Wilderness Act. Wilderness is defined as undeveloped Federal land retaining its primeval character and influence without permanent improvements or human habitation. Wilderness areas are protected and managed to preserve their natural conditions, which generally appear to have been affected primarily by the forces of nature with the imprint of man's activity substantially unnoticeable; have outstanding opportunities for solitude or a primitive and unconfined type of recreation; include at least 5,000 acres or is of sufficient size to make practical their preservation, enjoyment, and use in an unimpaired condition; and may contain features of scientific, educational, scenic, or historical value as well as ecologic and geologic interest.

Under the current management situation, roadless areas will be handled in the Forest Plan as follows:

1. Nonwilderness roadless areas - On February 1, 1983, the Secretary of Agriculture made a decision to reevaluate RARE II roadless areas as a result of the Ninth Circuit Court of Appeals decision in California v. Block. Pending any legislative changes, the reevaluation will be conducted during the Forest land and resource management planning process and will include, in addition to further planning areas, roadless areas recommended for wilderness in RARE II and areas that were administratively designated for nonwilderness uses. Activities in nonwilderness areas will continue under existing Plans, pending completion of the Forest Plans.

2. Wilderness and primitive areas - These areas will be managed to protect their wilderness characteristics as provided for through the Wilderness Act of 1964 and subsequent designating legislation.

3. Recommended wilderness - These areas have already been recommended as suitable for inclusion as wilderness areas through the RARE II process but will be reevaluated in Forest planning. These areas may be considered for designation by Congress prior to completion of the Forest Plans.

4. Further planning areas - These areas will be considered for wilderness or nonwilderness during the development of Forest Land and Resource Management Plans. Decisions on the suitability or unsuitability of the areas for wilderness designation will be made in the Forest Plan. Suitable areas will be recommended to Congress for inclusion in the National Wilderness Preservation System. (The matter goes before Congress for final decision.) If not found suitable, Congress will be notified by letter of a decision of unsuitability in the Forest Plan. A 90-day waiting period is necessary while Congress is in session before a decision of unsuitability can be implemented.

Interim management direction for recommended wilderness and further planning areas protects their wilderness characteristics until the final decisions are made. The areas are not available for timber harvest, road construction, or other activities that reduce wilderness potential. Entry into the areas for the exploration, development, and production of minerals is permitted under the 1872 mining laws. Mineral leasing in further planning areas includes a stipulation that requires a sequential review and approval of operations. This requires confirmation that succeeding operations are warranted by information collected in the preceding stage.

Wildfire - Any wildland fire that is not a prescribed fire.

Wildlife habitat diversity - The distribution and abundance of different plant and animal communities and species within a specific area.

Wildlife habitat effectiveness - The character of locations where wildlife are not disturbed by human activities.

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Window - A critical segment of terrain through which right-of-way could pass in traversing from point of origin to destination.

Withdrawal - An order removing specific land areas from availability for certain uses.

Wood fiber production - The growing, tending, harvesting, and regeneration of harvestable trees.

Work center - A facility where crews assemble and are directed toward their various work assignments. A work center can be located at an administrative site. A work center normally will include storage and warehousing facilities and may include crew housing.

Xeric - A soil moisture regime common to climates that have moist, cool winters and warm, dry summers. Some moisture is present but does not occur at optimum levels for plant growth. Irrigation or summer fallow is often necessary for crop production.

Yarding - Hauling timber from the stump to a collection point.

Year-round economies - Economies based on employees working year-round as opposed to seasonal employment.

Zone of influence (ZOI) - The area influenced by Forest Service management activities.

APPENDIX A

FA80 ADMINISTATIVE SITES

MIH CODE	ADMINISTRATIVE SITE	DISTRICT	MANAGEMENT AREA	REMARKS
	RENO WAREHOUSE & W.C.	SO	2	Existing site and buildings to be phased out by FY-1986, and collocated with the Supervisor's Office.
	SUPERVISOR'S OFFICE	SO	2	Property acquired in fee in FY-1985. Warehouse and work center facilities to be constructed on site by FY-1986.
	DOG VALLEY A.S. & W.C.	D1	1	Replace the existing facilities at a new site. Evaluation will be done in FY-1985.
	VERDI A.S.	D1	1	Will be evaluated as a part of the Dog Valley study.
	CARSON DISTRICT OFFICE	D1	2	Expansion of existing facility planned. Project data has been submitted in budget process.
	CLEAR CREEK JCCC	D1	2	Site will be evaluated for retention or disposal.
	MINDEN WHSE & W.C.	D1	2	Existing facility will be retained.
	WOODFORDS A.S.	D1	3	Available property will be evaluated for retention or disposal in FY-1986.
	MARKLEEVILLE A.S. & HELIPORT	D1	3	Existing facilities will be evaluated in FY-1986 for retention or relocation.
	LEVIATHAN LOOKOUT	D1	3	Existing facility will be retained.
	SODA SPRINGS G.S.	D1	5	Existing facility will be evaluated for removal or retention as an administrative site necessary for wilderness administration.
	CONNELLS COW CAMP	D1	5	Existing site will be retained. Maintenance responsibilities will be transfered to the permittee and California Fish and Game.
	PAIUTE MEADOW CABIN	D2	4	Retain existing cabin, pasture and corrals.
	WHEELER G.S.	D2	4	Existing facilities will be retained. A bunkhouse facility and upgrading of the sewer system is proposed.
	BRIDGEPORT HELIPORT	D2	4	Proposed for relocation to the Bridgeport airport.
	BRIDGEPORT HOUSING	D2	6	Retain and existing facilities. Reconstruct access and interior roads.
	BRIDGEPORT WHSES. & W.C.	D2	6	Leased site will be evaluated for continuation of lease, or other options.
	BRIDGEPORT DISTRICT OFFICE	D2	6	Leased site will be evaluated in conjunction with the warehouse and work center.
	AUSTIN RANGER DWELLING	D3	8	Existing site will be retained and maintained.

MIM CODE	ADMINISTRATIVE SITE	DISTRICT	MANAGEMENT AREA	REMARKS
	AUSTIN WHSE & W.C.	D3	8	A project has been developed to construcy additional Government housing, warehouse space, and storage area on Government property in and near Austin.
	AUSTIN DISTRICT OFFICE	D3	8	Leased site will be evaluated for continuation of lease, or acquiring title.
	KINGSTON A.S.	D3	8	Existing site and facilities will be retained.
	SAN JUAN G.S.	D3	8	Existing site and facilities will be retained.
	REESE RIVER A.S.	D3	8	Existing site and facility will be evaluated for retention and reconstruction.
	STONEBERGER CORRAL G.S.	D3	9	Existing site will be retained. Existing trailer will be removed and a small cabin constructed.
	CHARNAC G.S.	D3	10	Existing site will be retained. Trailer will be replaced by a new small cabin.
	BLACKBURN G.S	D3	10	Site will be abandoned and existing facilities will be removed except for the historic cabin which will remain.
	SAVORY G.S.	D3	10	Site will be abandoned and the existing facilities will be removed.
	STONECABIN G.S.	D4	8	Existing site and facilities will be retained.
	SMOKY VALLEY A.S.	D4	8	Existing site will be retained. Existing unserviceable trailers will be removed from the site.
	LITTLE MEADOWS G.S.	D4	8	Existing site will be retained. Existing unserviceable trailers will be removed from the site.
	PEAVINE G.S.	D4	8	Existing site will be retained. Pasture will be re-established and corral maintained.
	MEADOW CANYON A.S.	D4	9	Existing site will be retained. Existing unserviceable trailer will be removed.
	BARLEY CREEK G.S.	D4	10	Existing site will be retained. Existing trailer will be removed, and pasture and corral maintained.
	SCUFFIES G.S.	D4	10	Existing site will be retained. Existing tent pad and pasture will be retained.
	WILLOW CREEK G.S.	D4	10	Two existing unserviceable trailers will be removed. The pasture will be retained for continued use.
	HUNTS CANYON G.S.	D4	10	Existing site will be retained.
	COTTONWOOD ADMIN. SITE	D4	10	Abandon site and remove structures.
	DANVILLE ADMIN. SITE	D4	10	Evaluate need due to increased minerals exploration in adjacent

MIH CODE	ADMINISTRATIVE SITE	DISTRICT	MANAGEMENT AREA	REMARKS
				areas. Develop a site plan if necessary.
	TONOPAH DISTRICT OFFICE	D4	8	Replace leased office with Forest owned facility.
	TONOPAH RANGER DWELLING	D4	8	Retain site and existing dwelling.
	TONOPAH WHSE & W.C.	D4	8	Retain existing site and facilities. Find an alternative site for other Federal agencies to store trailers and other equipment.
	SANDIA HOUSES	D4	8	Retain structures and provide heavy maintenance.
	HOUSE ON MAGNOLIA ST.	D4	8	Retain house and provide heavy maintenance.
	BARRACKS #104	D4	8	Retain structure.
	BARRACKS #106	D4	8	Convert structure into storage warehouse. Consider site for exchange.
	LEE CANYON G.S.	D5	11	Construct bunkhouse building, water and sewer system.
	KYLE CANYON A.S & W.C.	D5	11	Retain existing site. Construct barracks to replace existing trailers. Reconstruct water and sewer systems and construct a warehouse facility. Provide adequate access and parking for the public.
	LAS VEGAS DISTRICT OFFICE	D5	11	Retain existing G.S.A. leased facility. Evaluate relocation to other Federal lands or acquiring a site.

APPENDIX B

SPECIAL STIPULATIONS

The following special stipulations are in addition to the lease terms and standard stipulations (forms 3109-5, 3109-3, and Forest Service Supplement to 3109-3), and are necessary to protect specific resorce values on the lease area. If found to be in the public interest, these stipulations may be made less restrictive when specifically approved in writing by the District Engineer, Geological Survey, and the authorized officer of the Federal surface management agency.

1. All of the land in this lease is included in (recreation or special area, etc.). Therefore, no occupancy or disturbance of the surface of the land described in this lease is authorized. The lessee, however, may exploit the oil and gas resources in this lease by directional drilling from sites outside this lease. If a proposed drilling site lies on land administered by the Bureau of Land Management, or by the Forest Service, a permit for use of the site must be obtained from the BLM Distyrict Manager or the Forest Service District Ranger, before drilling or other development begins. (Note: Use of stipulation requires GS concurrence.)

2. No access or work trail or road, earth cut or fill, structure or other improvement, other than active drilling rig, will be permitted if it can be viewed from the (road, lake, river, etc.). (Note: Use of stipulation requires GS concurrence.)

3. No occupancy or other activity on the surface of (legal subdivision) is allowed under this lease.

4. No occupancy or other surface disturbance will be allowed within __________ feet of __________)road, trail, river, creek, canal, etc.). This distance may be modified when specifically approved in writing by the District Engineer of the Geological Survey, with the concurrence of the authorized officer of the Federal surface management ageency.

5. No drilling or storage facilities will be allowed within __________ feet of (live water, the reservoir, the archeological site, the historical site, the paleontological site, etc.). This distance may be modified when specifically approved in writing by the District Engineer of the U.S. Geological Survey, with the concurrence of the auithorized officer of the Federal surface management agency.

6. No occupancy or other surface disturbance will be allowed on slopes in excess of ________ percent, without written permission from the District Engineer of the U>S> Geological Survey, with the concurrence of the authorized officer of the Federal surface manbagement agency.

7. In order to (minimize watershed damage, protect important seasonal wildlife habitat, etc.) exploration, drilling, and other development activity will be allowed only during the periof from ________________ to ________________, during dry soil period, over a snow cover, on frozen ground.) This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any

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year may be specifically authorized in writing by the District Engineer of the U.S. Geological Survey, with the concurrence of the authorized officer of the Federal surface management agency.

8. In order to minimize watershed damage, during muddy and/or wet periods. the authorized officer of the Federal surface management agency, through the District Engineer of the U.S. Geological Survey, may prohibit exploration, drilling, or other development. This limitation does not apply to maintenance and operation of producing wells.

9. The ____________ (Trail/Road) will not be used as an access road for activities on this lease, except as follows: (No exceptions, weekdays during recreation season, etc.).

10. To maintain esthetic values, all semi-permanent and permanent facilities may require painting or camouflage to blend with the natural surroundings. The paint selection or method of camouflage will be subject to approval by the District Engineer of the Geological Survey, with the concurrence of the authorized officer of the Federal surface management agency.

11. No occupancy or other activity on the surface of the following described lands is allowed under this lease:

Reasons for this restriction are:

Examples of appropriate reasons for this restriction are:

1. Steep slopes.
2. Specific ecosystem, ecological land unit, land type or geologic formation which presents hazards such as failure.
3. Roadless or essentially roadless area (includes Chevron and Rainbow stipulations).
4. Special management units such as: Recreation Type I, water supply, administrative site, etc.

( ) Approximately % of lease

Note: This stiuplation could be used in place of stipulation nos. 1, 3, and 6.

12. No ____________________ will be allowed within ______ feet of the ______________. This area contains ______________ acres and is described as follows:

Reasons:

First blank to be filled in with one or more of the following: drilling, storage, facilities, surface disturbance, or occupancy. Second and third blanks to be filled in with one or more of the following:

1. ______ feet wildlife habitat essential to specific species.
2. ______ feet peripheral or unique vegetative type.
3. 200 feet either side of centerline of roads or highways.
4. 500 feet of normal high waterline on all streams, rivers, ponds, reservoirs, lakes.
5. 600 feet of all springs.
6. 400 feet of any improvements.

Note: Stiuplation no. 12 could be used in place of stipulations nos. 4 and 5.

13. In order to (minimize) (protect)________________________________, ____ will be allowed only during ____. This does not apply to maintenance and operation of producing wells and facilities. Lands within leased area to which this stipulation applies are described as follows:

Reasons:

First blank to be filled in with one or more of the following:

1. Watershed damage.
2. Soil erosion
3. Seasonal wildlife habitat (winter range, calving/lambing area, etc.).
4. Conflict with recreation.

Second blank to be filled in with one or more of the following:

1. Surface disturbing activities.
2. Exploration
3. Drilling
4. Development

Third bland to be filled in with one or more of the following:

1. Period from __________________ to ________________.
2. Dry soil periods.
3. Over the snow.
4. Frozen ground.

Note: Stipulation No. 13 could be used in place of stipulation no. 7 giving greater definition as to restriction.

14. Controlled or Limited Surface Use Stipulation. This stipulation may be modified when specifically approved in writing by the District

Engineer, Geological Survey, with concurrence of the Federal surface management agency. Distances and/or time periods may be made less restrictive depending on the actual onground conditions.

The lessee/operator is given notice that all or portions of the lease area may contain special values, may be needed for special purposes, or may require special attention to prevent damage to surface and/or other resources. Any surface use or occupancy within such special areas will be strictly controlled or, if necessary, excluded. Use of occupancy will be authorized only when the lessee/operator demonstrates that the use and operations plan which is satisfactory to the Geological Survey and the Federal surface management agency for the protection of such special areas and existing or planned uses. Approporiate modifications to imposed restrictions willbe made for the maintenance and operation of producing oil and gas wells; however, in extremely critical situations, occupancy may only be allowed in emergencies.

After the Federal surface management agency has been advised of specific proposed surface use or occupancy on these lands, and on request of the lessee/operator, the agencty will furnish more specific locations and additional information on such special areas which now include:

(Legal land description to lot and/or quarter, quarter section.)

Reason for Restriction:

Duration of Restriction: (year-round, month(s))

15. Activity Coordination Stipulation. This lease includes lands within *______________________________ which has resource values sensitive to high levels of activity. In order to minimize impacts to these resources, special conditions, such as unitization prior to approval of operations, and/or other limitations to spread surface disturbance activities over time and space may be required prior to approval and commencement of any operations on the lease.

*Wilderness Areas, Further Planning Areas, Areas of Threatened or Endangered Species.

16. Protection of Endangered or Threatehend Species. The Federal surface 3anagement agency is responsable for assuring that the area to be disturbed is examined, prior to undertaking any surface-disturbing activities on lands covered by this lease, to determine effects upon any plant or animal species listed or proposed for listing as endangered or threatened or their habitats. If the findings of this exaination determine that the operation may detrimentally affect on endangered or threatened species, some restrictions to the operator's plans or even disallowances of use may result.

The lessee/operator may, at his discretion and cost, conduct the examination on the lands to be disturbed. This examination must be done by or under the supervision of a qualified resource specialist approved to the surface management agency identifying the anticipated effects of tghe proposed action on endangered or threatened species or their habitat.

APPENDIX C

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The following is a resource summary of all resources found on the Toiyabe National Forest. Tables C-1 through C-9 shows the timber summary, with the following pages (C-5 through C-11) the other resource summaries.

TIMBER

TABLE C-1 LAND CLASSIFICATION

CLASSIFICATION	Acres
1. Non-Forest land (includes water)	1,524,098
2. Forest land	1,647,607
3. Forest land withdrawn from timber production 1/	40,495 1/
4. Forest land not capable of producing crops of industrial wood	1,484,845
5. Forest land physically unsuitable: Irreversible damage likely to occur Not restockable within 5 years	15,788
6. Forest land - inadequate information	0
7. Tentatively suitable forest land (Item 2 minus items 3, 4, 5, and 6)	106,479
8. Forest land not appropriate for timber production:	
Assigned to other resource uses in plan (Wilderness)	18,351
Not cost efficient in meeting plan objectives	17,545
9. Unsuitable forest land (Items 3, 4, 5, 6, and 8)	1,577,024
10. Total suitable forest land (Item 2 minus item 9)	70,583
11. Total National Forest system land (Items 1 and 2)	3,171,705

1/ Hoover Wilderness and includes lands in RARE II designated wilderness areas by California Wilderness Act of 1984 - Mokelumme Wilderness (Raymond Peak Core Area and Tragedy-Elephants Back) and Carson-Iceberg.

TABLE C-2 ACREAGE PHYSICALLY UNSUITABLE FOR TIMBER PRODUCTION BY MANAGEMENT AREA

Management Area	Acres Physically Unsuitable for Timber Production
1	0
2	3,221
3	4,997
4,5	7,086
6	484
7	0
8	0
9	0
10	0
11	0
12	0
TOTAL	15,788

TABLE C-3 TOIYABE TENTATIVELY SUITABLE FOREST LAND DISTRIBUTION

Mgt. Area No.	Tentatively Suitable Forest Land	Assigned to Other Resource Uses in Plan	Not Cost Efficient in Meeting Plan Objectives	Suitable Forest Land
1	14,140		7	14,133
2	22,941		7,419	15,522
3	26,919		4,892	22,027
4	23,568	8,215	813	14,540
5	0			0
6	4,361			4,361
7	0			0
8	0			0
9	0			0
10	0			0
11	4,414		4,414	0
12	10,136	10,136		0
TOTAL	106,479	18,351	17,545	70,583

TABLE C-4 ALLOWABLE SALE QUANTITY (ANNUAL AVERAGE FOR FIRST DECADE)

Forplan Model General Prescription Name	Allowable Sale Quantity		
	Sawtimber MCF	Sawtimber MBF	Acres
Shelterwood 1/	464.6	3,018.4	213.8
Retention Visual Zone Cut	228.6	1,481.7	274.5
Salvage/Sanitation	As Needed	As Needed	--
TOTAL	693.2	4,500.1	488.3

1/ Includes shelterwood, clearcut, and intermediate harvest methods

TABLE C-5 TIMBER SALE PROGRAMMED QUANTITY (ANNUAL AVERAGE FOR FIRST DECADE)

SAWTIMBER	693.2 MCF	4,500 MBF

TABLE C-6 VEGETATION MANAGEMENT PRACTICES (ANNUAL AVERAGE IN FIRST DECADE FOR SUITABLE LANDS)

Practice	Acres
Regeneration Harvest:	
Clearcut	As needed
Shelterwood and Seed Tree:	
- Preparatory cut	213.8 2/
- Seed cut	--
- Removal cut	--
Selection:	
- Individual Tree Selection	274.5 2/
- Group Selection	--
Intermediate harvest:	
Commercial thinning	As needed
Salvage/sanitation	As needed
Timber Stand Improvement	270.0 2/
Reforestation 1/	519.3 2/

1/ Includes natural and artificial.
2/ These acreages are estimates based on modeling, with implementation the site specific silvicultural prescriptions may cause differences.

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TABLE C-7 TIMBER PRODUCTIVITY CLASSIFICATION

Potential Growth (cubic feet/acre/year)	Suitable Lands (acres)	Unsuitable Lands (acres)
Less than 20		1,484,845
20-49	70,583	92,179
50-84		
85-119		
120-164		
165-224		
225+		

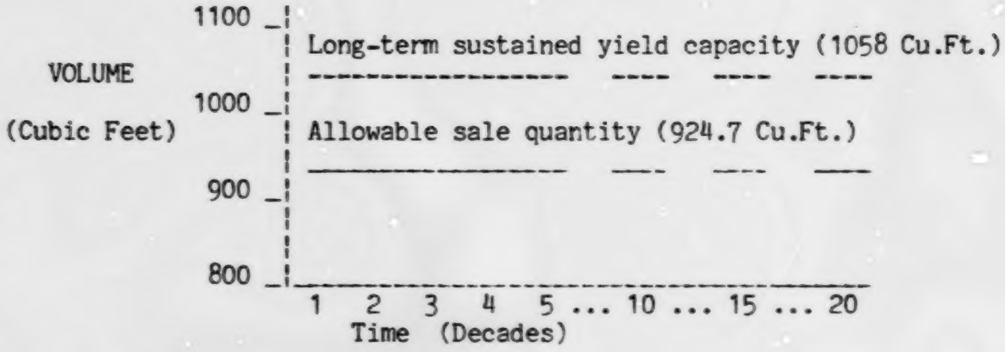
TABLE C-8 ALLOWABLE QUANTITIES OF OTHER PRODUCTS

Fuelwood	587 MCF	6,516 Cords
Pinyon Pine Nuts	77,757 Pounds	
Christmas Trees	1,300 Trees	
Posts and Poles	520 Each	

TABLE C-9 PROGRAMMED QUANTITIES OF OTHER PRODUCTS

Fuelwood	587 MCF	6,516 Cords
Pinyon Pine Nuts	77,757 Pounds	
Christmas Trees	1,300 Trees	
Posts and Poles	520 Each	

FIGURE 1 DISPLAY OF LONG-TERM SUSTAINED YIELD CAPACITY AND ALLOWABLE SALE QUANTITY



Preferred Alternative Allowable Sale Quantity and Long-term Sustained Yield

	Decade										
ASQ in:	1	2	3	4	5	...	10	...	15	...	20
MCF	693.3	693.3	693.4	693.7	693.6		693.7		693.6		693.6
MBF	4500	4500	4500	4500	4500		4547		4525		4522

Long-term sustained yield capacity 1541 MCF per year.

There are no timber management activities planned for unsuitable forest lands. However, the following activities are permitted:

1. Salvage or sanitation harvesting of trees or stands that are substantially damaged by fire, windthrow, or other catastrophe, or which are in imminent danger from insect or disease attack.

2. Cutting of individual trees or stands to test logging systems, to conduct experiments, or for the purpose of gathering information about tree growth, insect or disease organisms, or determining the effect of such harvesting on other resources.

3. Cutting of trees to promote the safety of forest users, such as hazard-tree removal in campgrounds and picnic grounds, administrative sites, and along roads open to the public.

4. Harvesting of fuelwood.

5. Harvesting to provide for access, such as road construction.

CULTURAL RESOURCES

This plan provides for the inventory and effective management of cultural resources which are listed in or eligible for inclusion in the National Register of Historic Places. Standards, guidelines, and management practices have been established to accomplish this goal.

DISPERSED RECREATION

There is a high demand for dispersed recreation on the Toiyabe. The Forest offers many opportunities to meet future needs, and an over-all opportunity for dispersed recreation will increase. This plan provides standards and guidelines which will direct realization of dispersed recreation opportunities while minimizing damage to other forest resources.

DEVELOPED RECREATION

There is a wide spectrum of opportunities that will continue to meet future demands. The sites should be made more durable to meet impacts. The level of law enforcement should improve over the current situation.

Additional developed site capacity will be provided through construction of new campgrounds at Robinson Creek and Faith Valley. Rehabilitation of worn-out facilities will continue at Hope Valley and Robinson Creek.

All together, twelve new developed recreation sites will be constructed and along with reconstruction of existing developed sites, will result in 5150 PAOTs. Developed recreation opportunities will increase over-all with most effects mitigated through hardening of sites or the addition of other facilities. Full service levels will be provided at 100% of the existing developed sites over the 50 year planning horizon.

NATIONWIDE RIVERS INVENTORY - USDI

A suitability study of three rivers on the Toiyabe which are eligible or may be eligible for future consideration as wild, scenic, or recreation rivers will be completed, and the rivers will be managed in accordance with the results of that study.

FACILITIES

The purpose of the forest development roads is to serve the projected traffic requirements of increasing public use and intensified management while protecting the Forest's environment by using proper design, construction, and maintenance practices.

The individual local road corridors will be located to:

(1) Minimize adverse impacts on soil and water resources, including riparian areas.
(2) Avoid known significant cultural resources.
(3) Preserve threatened, endangered, and sensitive species habitat.
(4) Consider traffic volumes, vehicle types, critical vehicle, safety, traffic management, alignment and road surface.

During the first planning period, approximately 13 miles of local roads will be constructed, 26 miles reconstructed, 41 miles of arterial and collector roads constructed, and 269 miles reconstructed.

FIRE MANAGEMENT

The Toiyabe National Forest averages 107 fires annually which burned approximately 7000 acres for the period 1980 through 1984. Thirty-five percent of the fires were person-caused with incendiary and campfires as primary statistical causes. Quick initial attack has minimized effects of these fires on resource management. Without capability for quick and effective initial attack, severe damage could be encountered during periods of high fire danger and in areas of high risk, such as urban interface. An Escaped Fire Situation Analysis is made for every escaped fire.

During the May thru October fire season, the Forest experiences about 40 days of high fire danger, 30 days of very high fire danger and 25 days of extreme fire danger. Traditionally, the highest fire occurrence is from late July through August. Most fires occur during high fire danger when flame lengths are about 3-6 feet. This makes suppression and mop-up efforts difficult. The fires occurring during very high and extreme periods are usually hard to handle and account for most resource damage and costs. Flame lengths over 100 feet during these periods are common.

Most large fires are supported by strong gravity winds from the west-southwest resulting in fires burning strongly downslope. This phenomena places a high risk to urban development placed adjacent to the Forest at the valley floor.

Table C-10 displays the relationship between fire intensity levels, the occurrence of fires and the National Forest acreage burned.

TABLE C-10 RELATIONSHIP BETWEEN FIRE INTENSITY LEVELS, FIRE OCCURRENCE AND ACRES BURNED ON THE TOIYABE NATIONAL FOREST.

Fire Intensity Level	Flame Length (Feet)	Sierras		Central Nevada	
		% of Fires	% of Acreage Burned	% of Fires	% of Acreage Burned
1	1-3	20	10	75	20
2	3-6	60	20	20	40
3	6+	20	70	5	40

TABLE C-10 (cont.)

Fire Intensity Level	Flame Length (Feet)	Las Vegas	
		% of Fires	% of Acreage Burned
1	1-3	30	20
2	3-6	50	35
3	6+	20	45

HUMAN RESOURCE PROGRAM

The Forest Service will continue to support human resource programs to provide employment, skills training, experience and education for both young and

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elderly persons in a natural resource environment. These programs foster the Secretary of Agriculture's commitment and the Agency's mission to serve unemployed, underemployed, minorities, economically disadvantaged, youth and elderly through forestry activities.

Youth Conservation Corps (YCC) will provide youth between ages of 15 to 18 years with gainful summer employment while accomplishing needed conservation work on public lands. Senior Community Service Employment Program (SCSEP) will provide part-time employment for elderly persons whose incomes are within poverty-level guidelines.

Enrollees in these human resource programs will continue to engage in a number of activities on National Forest lands: developed recreation facility maintenance, recreation clean-up, trail maintenance and construction, facility operation and maintenance, reforestation, timber stand improvement, road maintenance, land surveying, road location surveying and clerical work.

The human reource program will continue as long as, and to the level, appropriated by Congress.

VOLUNTEER PROGRAM

The Volunteer Program will continue to provide a means for the National Forests to accept and use services of volunteers (either individuals or groups) for conservation work. Volunteers will engage in a number of activities on National Forest System lands: campground hosts, recreation area cleanup, trail maintenance and cultural resource inventory.

Management direction in the Volunteer Program will be for each District Ranger to assess need for volunteers on their district, identifying jobs which can be accomplished by volunteers.

LANDS

This plan contains standards and guidelines to facilitate landownership adjustments, which permit the adjustment of National Forest lands to accommodate the goals and objectives of this plan. Land adjustment will be used to consolidate federal ownership: (1) to increase the efficiency of multiple resource management, (2) to increase the convenience of resources to forest users and visitors, (3) to decrease administrative costs, (4) to minimize energy consumption, and (5) to increase the protection and enhancement of the environment. The Landownership Adjustment Standards guide opportunities for adjusting landownership patterns. Land consolidation will permit better management of all resources, both on public and private land. Land consolidation will also reduce impact from adjacent private ownership.

Standards and guidelines are also provided in this plan to manage special use permits and possible impact from development of private inholdings.

LAW ENFORCEMENT

The Forest Service has statuary authority to enforce federal laws and regulations pertaining to the National Forests by virtue of the Act of March

3, 1905, Title 16 USC 559. The States of Nevada and California have jurisdiction for the enforcement of state and local laws on the Forest.

The Toiyabe National Forest has four Level IV law enforcement positions on the Ranger Districts. Technical direction is supplied by a special agent assigned to the Supervisor's office.

Increased use of National Forest will result in more violations, especially in the recreation activities, arson fire, wanton vandalism and firewood and property theft.

Six cooperative agreements exist between local sheriffs and U.S. Forest Service. This helps finance extra burdens place on county law enforcement organizations due to visitors attracted to the National Forest.

Much of the law enforcement is directed towards deterrence and prevention of violations through personal contacts and implementation of the Host Program principle.

This plan will:

- Provide improved protection to the public while engaged in recreational activities.
- Decrease vandalism by increasing law enforcement activities.
- Prevent use of National Forest Systems land for cannabis cultivation and production.
- Patrol recreation areas to provide protection to the public.
- During the fire season, intensify patrols in areas of high incendiary fire occurrence, especially in the mountains.
- Patrol areas where firewood theft is anticipated.
- Improve protective devices at work centers, offices, seed orchards, and other Forest Service installations to discourage theft and vandalism.
- Work towards apprehending and bringing malicious incendiarists to trial.
- For cooperative action, maintain contact with local law enforcement agencies.
- Maintain a high visibility presence to deter violations and project a Good Host image.

MINERALS AND ENERGY

Through specific standards amd guidelines, this plan will encourage the development of the energy and non-energy mineral resource while protecting the surface resource and providing for adequate reclamation. Over the 50 year planning period, 12,069 operating plans will be issued. Total disturbance will occur on 32,070 acres.

This plan proposes 180.5M acres as wilderness which will remove this acreage from energy mineral leasing and new non-energy mineral entry. Of the 180.5 M acres, 40,447 acres have been identified as having high mineral potential. These acres are subject to valid existing rights.

RANGE

The Forest Service is authorized to develop, administer, and protect range resources and permit and regulate grazing use of all kinds and classes of livestock on National Forest system lands.

The Toiyabe National Forest has 122 livestock grazing allotments and 14 wildhorse and burro territories. Currently 40% of the rangelands are in less than satisfactory condition. Of the 14 wildhorse territories, some have increasing population, some diminishing population and some vacant. The Toiyabe National Forest is mandated under the Wild Free-Roaming Horse and Burro Act of 1971 to maintain territories in a thriving ecological condition. This plan will provide standards and guidelines and management direction that bring 95% of all rangelands to satisfactory conditions and will provide improved management of all allotments or territories by 1995.

Soils

Minimum management requirements and standards and guidelines contained in this plan ensure the maintenance of soil productivity. Exceptions may occur with some construction activities where roads, mine dumps, or other facilities permanently lower or eliminate site productivity. The Forest's severely damaged sites will be treated to prevent further degradation and, where feasible, site productivity will be restored. Timber harvest, using conventional tractor logging methods, will be confined to slopes of less than 30% on the Forest's erosive granite sites to maintain soil productivity.

Water

The annual yield of approximately 949,500 acre feet will remain relatively unaffected by forest management. Annual fluctuations in yield will occur in response to the extreme annual variation in weather that characterizes the climate of the Interior West. Maintained or improved water quality will meet State water quality standards including the protection of benefical uses. One exception will be the water quality problems associated with the Leviathan mine complex. Forest wide, sediment will continue to be the primary water quality concern, although with few exceptions, sediment is not specifically addressed as a state water quality standard. Minimum management requirements and standards and guidelines contained in this plan ensure the maintenance of water quality. Specific standards and guidelines have been developed for the protection of riparian and watershed values.

VISUAL QUALITY OBJECTIVES

This plan provides standards and guidelines to manage visual qualities. Over-all impacts will be reduced because of a decrease in timber harvesting and improved coordination and enforcement of mineral operating plans.

WILDERNESS

This plan provides for the proposed addition of 180.5M acres of wilderness in Nevada and California to an existing 135.0 M acres already designated on the Forest. This would result in an increse from 6,070 M RVDs to 6,878 M RVDs. Designation of an additional 180.5M acres of wilderness would effectively decrease timber production. There will also be a decline in mineral exploration through removal of these acres and thus a possible decline in mineral production. Standards and guidelines are provided in this plan to maintain wilderness characteristics and values while allowing for public use.

WILDLIFE

To maintain viable populations of all native vertebrate and plant species, a number of management practices, standards and guidelines are required. Standards and guidelines for the maintenance of viable populations of wildlife and fish species are given in Forest-wide standards and guidelines.

THREATENED AND ENDANGERED SPECIES

The minimum management requirements (MMRs) associated with this plan are set to maintain the Lahonton Cutthroat and Paiute Cutthroat trout. This Plan also manages and protects other threatened, endangered and sensitive wildlife and plant species through standards and guidelines.

DIVERSITY

Standards and guidelines incorporated into all management prescriptions in this plan provide for a wide diversity in both plant and animal species. Diversity of plants and animals is needed to maintain viable populations of many species. All stands in the Forest will have components of species present other than the designated management type.

APPENDIX D

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Implementation of this Forest Plan will change the composition of timber types on the Forest over time. Table D-1 displays the present and future forest conditions. Table D-2 summarizes the present and future forest type and age composition. Table D-3 displays the forest type and age composition AFTER the first period. Table D-4 displays the forest type and age composition AFTER the fifth period. Table D-5 displays the forest type and age composition FOR the twentieth period. The Forest would be capable of maintaining a long-term sustained yield of 1.54 million cubic feet annually (achieved the twentieth period).

TABLE D-1 PRESENT AND FUTURE FOREST CONDITIONS

	Unit of Measure	Suitable Land	Unsuitable Land
PRESENT FOREST:			
Growing stock	MMCF MMBF	151.0962	N/A
Live cull	MMCF MMBF		
Salvable dead	MMCF MMBF		
Annual net growth	MMCF MMBF	1.389	N/A
Annual mortality	MMCF MMBF		
FUTURE FOREST:			
Growing stock	MMCF	181.8779	
Annual net growth	MMCF	- 0.579	
Rotation age	Years	120 to 130 1/	

1/ Average rotation age for regenerated stands on lands with timber emphasis.

TABLE D-2 TIMBER AGE-CLASS OF THE TOIYABE NATIONAL FOREST
Presently and Future (Based on Forplan)

Age Class	Acreage		
	Now	50 Years	200 Years
0 - 10	4,125		
11 - 20		1,774	2,358
21 - 30		2,138	3,210
31 - 40			2,041
41 - 50	4,167	4,125	2,772
51 - 60	16,870		446
61 - 70			8,355
71 - 80			
81 - 90		4,167	1,483
91 - 100		16,870	483
101 - 110			3,721
111 - 120	11,913		783
121 - 130			842
131 - 140			806
141 - 150	14,584		1,034
151 - 160		10,263	
161 - 170	18,924		
171 - 180			1,361
181 - 190		14,406	
191 - 200			
201 - 210		16,839	
211 - 220			2,097
221 - 230			6,624
231 - 240			
241 - 250			
251+			32,166

TABLE D-3 SPECIES AND AGE CLASS COMPOSITION OF THE FOREST AFTER THE FIRST PLANNING PERIOD (DECADE)

FOREST TYPE			
Age	Jeffrey pine	Mixed conifer	Lodgepole pine
	Acres		
10			
20	2,580	1,079	467
30			
40			
50			
60		2,648	1,519
70	16,870		
80			
90			
100			
110			
120			
130	11,913		
140			
150			
160			14,584
170			
180		18,924	
190			
200			
210			
220			
230			
240			
250+			

TABLE D-4 SPECIES AND AGE CLASS COMPOSITION OF THE FOREST AFTER THE FIFTH PLANNING PERIOD (DECADE)

FOREST TYPE

Age	Jeffrey pine	Mixed conifer	Lodgepole pine
	Acres		
10	336		
20		276	169
30		842	
40		806	
50	1,538	458	178
60	511	1,627	
70	43	2,702	
80	2,580	1,079	467
90			
100			
110			
120		2,648	1,519
130	16,870		
140			
150			
160			
170			
180			
190	9,486		
200			
210			
220			14,237
230			
240		12,212	
250+			

TABLE D-5 SPECIES AND AGE CLASS COMPOSITION OF THE FOREST FOR THE TWENTIETH PLANNING PERIOD (DECADE)

FOREST TYPE			
Age	Jeffrey pine	Mixed conifer	Lodgepole pine
	Acres		
10			
20	2,352	6	
30	719	2,492	
40		2,041	
50	43	2,729	
60	353	93	
70	8,251	104	
80			
90		1,483	
100		483	
110	2,371	1,350	
120	336	278	169
130		842	
140		806	
150	399	458	178
160			
170			
180	806	88	467
190			
200			
210			
220		579	1,519
230	6,624		
240			
250+	9,109	8,819	14,237

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APPENDIX E

PRESCRIPTION DESCRIPTION AND STANDARDS & GUIDELINES

GOAL 1 - Minimum Level Management prescription:

Purpose: A management thrust that emphsizes the Administrations base level program (25% less than FY 82).

FORPLAN Level 7 (Management Emphasis) Identifiers for Goal 1:

--Goal 1 - Applied to all analysis areas in Central Nevada and Mt. Charleston portion of the forest.

--Timber 1 - A goal 1 prescription applied to all commercial timber analysis areas on the Carson District (Sierra).

--Timber Haul 1 - A goal 1 prescription applied to all commercial timber analysis areas on the Bridgeport District (Sierra).

--Range 1 - A goal 1 prescription applied to all non-commercial timber analysis areas in Central Nevada, range allotment analysis areas in the Sierra.

Major Forestwide "Functional" Standards & Guidelines by Resource:

Recreation. There will be minimum Recreation Planning to protect public safety and high-value resources. Only High-Risk E.A. will be reviewed. Visual quality will be retained. Cultural Resource Inventory is project related only, with maximum used of paraprofessionals to conduct the inventories. Cursory trail inventory records will be maintained. No interpretive work will be conducted through Visitor Information Services. Patrols will be performed on priority Developed sites when possible. Priorities will dictate the closure or removal of noncost-effective sites. Fees will be collected in cost-effective fee sites. Sites will be closed when resources show heavy damage. Public hazards will be corrected in operating sites, but beyond this, they will generally be maintained to RIM Condition Class 1. Trail maintenance efforts will be directed to protect public safety first. Law enforcement efforts will be directed where environmental engineering and education have been unsuccessful, and damages/losses are most significant.

Wildlife. The necessary surveys, planning, prescriptions, monitoring, cooperation, and administration will be provided to maintain viable wildlife populations. Wildlife studies will be established and conducted within the general guidelines found in FSM 2200, 2500, and 2600. Studies will be limited to Management Indicator species. Habitat management plans will be written for all areas with a wildlife management emphasis. All planning , surveys, and inventories will be coordinated with the other program elements. Project related work will be significantly decreased. Efforts will be made to removed wildlife species from the Threatened and Endangered list. The consultation process will be conducted according FSM 2671. Interagency cooperation with Nevada Department of Wildlife and California Fish and Game Department will be done as outlined in the Memorandum of Understandings in FSM 2611. Structural and non-structural habitat improvements will be used to

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maintain or enhance viable populations of wildlife on the Forest, and will be restricted to management indicator species.

Range. The Forest Range Action Plan prioritizes allotments and sets forth the tasks to be performed on each allotment.

The tasks vary from allotment to allotment because management is based on the merit of the allotment and because inventory, planning, administrative, and monitoring tasks are in different stages of completion. For example, range analysis, which is prerequisite to a management plan, remains to be done on low priority allotments. On the other hand, intensive management is being practiced on the high priority allotments having significant resource values.

Under this prescription, resources are directed to maintain Allotment Management Plans (AMP's) for the high priority allotments. Inspection or allotment administration is performed to the extent necessary to insure the management system is being followed and to insure that objectives to arrest critical range deterioration are being met. AMP's currently in effect for moderate and low priority allotments are to be maintained commensurate with available resources. No new AMP's are to be implemented nor will AMP's requiring a major revision be updated. The Annual Operating Plan (AOP) will serve as the management instructions for allotments falling in these later two categories.

The Annual Operating Plan is prepared for each allotment in consultation with the permittee. Allotment examinations, which are described in the AOP, are based on the monitoring provisions in the AMP. Examinations on allotments not under an AMP are principally directed to insure that the standard provisions of the grazing permit are being met, i.e. Part 1 and 2. Examinations to insure special provisions are being met, i.e. Part 3, are to be conducted to obtain a ten percent random sample of the allotments not under an AMP.

Range Analysis, new or updating, is done only when the information is critical to the making of a management decision concerning resource damage caused by livestock or big game.

Range improvements, both structural and non-structural, will only be for arresting range deterioritation. Grazing permittees are responsible for the maintenance of structural range improvements assigned to them in the grazing permit. The Forest Service is responsible for the maintenance of range improvements necessary to administer allotments, e.g. Administrative Site pastures and corrals.

Range cooperation with other Federal agencies, State agencies, and other interest groups and persons will continue commensurate with the allotment situation. Emphasis is on building as well as maintaining a good working relationship with permittees and implementing Interagency Agreements between the Bureau of Land Management and the Forest Service to simplify the management and administration of rangelands that form a natural unit but are currently being managed and administered by each agency.

The control of noxious farm weeds will continue. Priority will be given to projects that involve cooperation with State and County agents, weed control districts, private interests, and projects that involve several Forest Service functions, e.g. range, wildlife, roads and trails, recreation, timber, watershed.

Technical assistance and training concerning the Forest Sensitive Plant Program will continue. Assistance priority is given to projects that would impact plant populations having an endangered or threatened status or would impact critical habitat.

Wild Free-Roaming Horses and Burros. Management will be in accordance with the Wild Free-Roaming Horse and Burro Act of 1971 and subsequent regulations. Territory Management Plans are maintained to the extent that the population level is in balance with the habitat. Vacant territories and territory boundaries will remain status quo. Interagency Agreements between the Bureau of Land Management and the Forest Service will be followed to the extent resources allow. Emphasis on maintaining a good working relationship with wild free-roaming horse or burro interest groups will continue as well as cooperating and coordinating the program with other State and County agencies, and other interest groups and persons.

Timber. The minimum amount of work will be completed to develop, prepare and maintain the timber portion of the Forest Plan. The timber portion of the forest plan will be maintained and updated only when absolutely needed. T.M.I.S. will be maintained annually. Other control records will be maintained only as absolutely necessary.

The Las Vegas Timber Stands will be managed to maintain desired stands for a forested appearance. Shelterwood, selection, sanitation, or a special silvicultural standard will be utilized as needed to perpetuate timber appearances. Thinning cuts may also be applied to these stands.

The pinyon/juniper stands will be managed to perpetuate these stands. Within fuelwood areas in pinyon/juniper, use a restriction of not cutting trees less than 4 inches diameter (stump height) on permits. In addition, for seed production and wildlife habitat (diversity) leave some groups (minimum of one acre total area left in groups per 100 acres cut) of mature trees (1-5 or more trees in group) scattered through woodcutting area. Explain to the public the purpose of groups of trees (wildlife habitat, seed and shade) and small trees (future crop trees, cone producers and shade for other seedling establishment). In pinyon/juniper stands where there are only mature trees over large areas, identify cone producing trees and protect them from cutting. Slash will be scattered to provide shade for helping forage and tree establishment. If slash amounts are heavy enough to exceed acceptable fuel loading other methods of slash reduction will be used, but slash will still be left scattered throughout cut area.

Limited timber harvest management activities such as fuelwood removal, timber stand improvement, planting, or stand examination are permitted within unregulated forested lands.

Any use of pesticide chemicals for timber management purposes will follow policy and procedures found in FSM Chapter 2150. Chemicals should not normally be used within riparian areas for timber management purposes.

Silvicultural Examinations will be conducted to provide data for timber projects. Standards for examination procedures are contained in the current Regional publication, "Stand Examination Procedures." A detailed written silvicultural prescription is required before timber vegetative manipulation or cultural treatment takes place. Exceptions include removal of trees that block vision along roads, removal of hazard trees, right-of-way clearing, mining operations, minor and incidental amounts of fuelwood. Stand examinations will only be done to identify stands with insect or disease problems that need treatment to prevent spread of insects or disease.

Tree crops or tree cover on lands classed as forested will be established. Standards for planting and seeding are in FSH 2409.266 - Reforestation Handbook. Cone collection is part of the reforestation process and the standards are in FSH 2409.26f - Seed Handbook. All backlog planting areas will be examined for existing tree stocking, economics of planting, and sites growth capacity prior to deciding to plant the area. Natural regeneration will be relyed on more than planting. Reforestation areas will be fenced if needed to prevent damage from sheep and cattle grazing. On all reforestation areas evaluate the need for control of animals to protect planted, seeded, or naturally regenerated stands from damage by coordinating with wildlife management. Reforestation to desired stocking levels will be done within 5 years of final harvest cut. Stocking levels are shown in FSH 2409.26b - Reforestation Handbook. Reforestation needed per existing KV plans will be completed.

Intermediate cuttings and other treatments to improve the composition, condition, and growth increment of timber stands will be made. The excess small material in the stand will be utilized for products when possible. The best residual basal area will be utilized to maximize stand growth. Timber stand improvements needed per existing KV plans will be completed. Timber will be managed at a very low level. There will be no sawlog sales, but resources production capability will be maintained. Timber sale preparation administration will be applied in and around developed recreation sites and in insect and disease control work. Integrated pest management will be incorporated in all sale planning, preparation and administration activities.

Tractor logging generally will be permited on slopes 35% or less and 30% or less on granitic soils. Site specific environmental assessments to modify for tractor logging on steeper slopes to fit ground conditions will be used. Single tree selection and salvage standards for a minimum of 100 feet from the edges of all perennial streams, lakes, and other bodies of water will be used. For wildlife purposes a minimum number of snags will generally be left as 1) on timber land leave .72 snags/acres 2) on aspen/riparian areas leave 1.72 snags/acres, and 3) Around openings leave 4 snags/acres. Along major highways (State and Federal), the selection standard will be applied.

Sanitation (salvage) timber removal will be allowed only within 200 feet of developed recreation sites. Individual tree selection standard will only be allowed within the next 100 feet. The above standards apply unless a major change in vegetation occurs (such as a stand becomes old growth and has a high hazard potential) and work must occur within the developed site to change the vegetation or a vegetative management plan is developed for the site in which case the treatments developed would be applied.

No new commercial sawlogs sales will be made. Administration of existing timber sale contracts will continue until all contracts are closed. A low level of timber products (mostly fuelwood) will be provided from pinion/juniper component and from insect and disease control work in jeffrey pine, mixed conifer, and lodgepole pine components. Sale administration will follow regional standards in Log and Load Accountability, Financial Management

(TSA), scaling, and check scaling.

Fuelwood may be sold or made available for free use as an integrated part of timber management. Sale procedures, administration and collections will follow uniform procedures in FSM 2430.42 (R4 Supplement No. 248) or as amended. Workroads needed to access fuelwood areas which are not available by existing system may be constructed, maintained and closed as funds permit and if environmentally sound.

Districts will evaluate the pine nut crop annually and determine if and where suitable areas exist for harvesting. These are to be readily accessible by vehicle. They will be delineated on a district administrative map. The map will become the basis for the sale program for the year. Utilize contributed funds (collections) for road construction and/or maintenance to encourage use of forest products which otherwise would not be merchantable. Commercial pine nut sales will be advertised and sold on a bid basis unless demands can be met and "over-the-counter" sales can be justified.

Personal use sales of Christmas trees for management purposes of pinyon/juniper will be utilized. In areas where Christmas tree sales are made, care will be taken to assure that the stand is not high graded or that stocking is reduced to an unsatisfactory level.

Post and pole sales will be utilized for management of overstocked pinyon/juniper stands. Post and pole sales can also be made in overstocked stands of other species.

Pinyon/juniper areas will be thinned or cut for multi-resource benefits. These include wildlife habitat improvement, increased range forage production and to meet the demand for fuelwood. Commercial sales will be made in various size to encourage small and large businesses. Contributed funds (collections) can be utilized for road construction/maintenance costs to provide access and protection of areas which would otherwise be unmanaged. A fuelwood policy for the Forest will be developed. The fuelwood policy will be reviewed and updated annually as needed.

A forest pest management program will be planned, directed and coordinated on the forest. Survey and suppression activities will be utilized to manage forest pests. Insect and disease problem areas will be monitored and control measures taken to attempt to prevent spread of the problems off the Forest. Insect and disease problem areas that are not likely to spread off the Forest will be monitored. The following treatment measures will be attempted; 1) if trees of species included in timber base are killed and the potential for rapid spread of the insect or disease, and 2) if the insect or disease problem is judged to be in epidemic stage, includes all species.

Activity caused fuels (slash) will be removed or treated to reduce fuel hazards and to improve visual resources. Slash will be utilized for fuelwood if possible. Slash treatment activities will be coordinated with fire management, air quality and wildlife habitat. Activity caused slash in roadside zones will be treated. Within the rest of the activity area, treat only heavy concentrations of slash.

Detection, prevention and investigation of violations of federal laws and regulations which are concerned with timber resources will occur. The law enforcement plan will reflect timber related law enforcement problems. This plan will emphasize prevention measures. Timber needs .68 person-years under this goal.

Cultural resource surveys will be completed prior to any ground disturbing project.

Soil and Water. The necessary data base, and planning will be provided for the best management of the soil and water resources. Soil and water inventories will be fully coordinated with the inventories of the other program elements. Inventories would be reactionary to outservice initiated activities or for the protection of public health and safety. Areas will be rehabilitated where resource damage has occurred. Improvement projects will be considered when necessary to protect public health and safety. FERC hydroelectric projects will be handled on a case-by-case basis. Adequate water will be provided to maintain and provided for all national resource values and uses. The water rights program will remain constant throughout all of the prescriptions. Watershed improvement structures will be maintained to the point necessary to perpetuate their usefullness. Only the improvements needed to protect investments will be maintained. Monitoring levels will be reduced commensurate with the reduction in management practices.

Minerals. Geologic reports shall be written as outlined in FSM 2884. All withdrawls and land exchanges will contain mineral evaluations. This prescription proportionately would have the least amount of outputs from general technical Inventory and Evaluation. Mineral withdrawls would be virtually nonexistent, except for Research Natural Areas (RNA). Land acquisitions and exchanges would be at a minimum. There would be no inventory of either special geologic areas nor common variety mineral materials. Validity examinations will be used to prevent unauthorized mining activities. Validity examinations will be conducted on all operations proposed within Research Natural Areas not withdrawn and wilderness areas (designated or proposed). Each Notice of Intent (NOI) or Operating Plan (OP) accepted will be processed in the same manner throughout the prescriptions. A detailed assessment of 70% of the NOI's and OP's submitted on the Forest will be conducted. Each lease application submitted to the Forest will be processed in the same manner throughout the prescriptions. All proposed development plans submitted to the Forest will be acted upon. Compliance checks will be conducted as described in FSM 2817. Contests and appeals will be used on a case-by-case basis to insure compliance of 36 CFR 228 regulations through adminstrative and judicial channels.

Fire Management. Fire Prevention is at Level 1. There will be minimum passive media management and coordinatin of seasonal restrictions, with token use of CFFP materials. Public and cooperators will be utilized in Fire detection. Force account detection following electrical storms will be used in high-risk situations only. For primary initial attack maintain capability approximating FY81, 5100-9's. Initial attack forces will productively support other elements and activities when pre-suppression objectives have been met and when not on fires. Optimal use of cooperators and regional resources for secondary attack. Minimal support will be used to maintain the organization. There will be no major capital investments. For initial attack suppression action and escaped fire suppression refer to Forest Service Manual (FSM). Fuel management inventory, treatment of natural fuels, and fuel-break construction are not performed for this prescription. Interagency opportunities to support inital attack capability will be optimized. Passive fire cause investigations will be performed.

Facilities. The transportation system will be planned, developed and operated to provide user safety, convenience and effienciency to accomplish land and resource management objectives. Transportation System review will be performed on the entire system to establish a basis for road management policy which is coordinated with land and resource management objectives by the management team. All reconstruction engineering, construction and reconstruction activities for arterial and collector roads are not applicable for this goal. For traffic management, the analysis, control and use of the Transportation System will support the accomplishment of land and resource management goals. On-the-ground maintenance will be performed on an emergency basis, accomplishing only high priorities forestwide. All preconstruction engineering, construction engineering and construction and reconstruction activities for all trails is not applicable to this goal. FA&O construction and reconstruction is also not applicable to this goal. Structures will be maintained to no less than minimum standards for health and safety for the users. Potable water systems will be maintained and monitored to standards to protect the health of the public and FS personnel. Wastewater systems, including treatment facilities, will be maintained and monitored to standards to avoid creating public hazards. These will maintain and restore water quality and prevent future pollution. Technical inspection will be performed annually on all high, and selected moderate and low hazard dams to monitor conditions and ensure maintenance is accomplished to minimize hazards to downstream life and property.

GOAL 2 - A current level prescription:

Purpose: A prescription that uses the 1981 budget, activities, and outputs. This projects into the future the outputs that would occur if current activities were continued.

FORPLAN Level 7 (Management Emphasis) Identifiers for Goal 2:

--Goal 2 - Applied to all analysis areas in Central Nevada and Mt. Charleston portion of the forest.

--Timber 2 - A goal 2 prescription applied to all commercial timber analysis areas on the Carson District (Sierra).

--Timber Haul 2 - A goal 2 prescription applied to all commercial timber analysis areas on the Bridgeport District (Sierra).

--Range 2 - A goal 2 prescription applied to all non-commercial timber analysis areas in Central Nevada, range allotment analysis areas in the Sierra.

Major Forestwide "Functional" Standards & Guidelines by Resource:

Recreation. Same a Goal 1 with the following exceptions:
Recreation planning is at a slightly higher level, in response to issues and NEPA requirements. Insuring that recreation is fully analyzed as a key

opportunity on the Toiyabe. This goal emphasizes Visual Quality Objectives (VQO) and Visual planning in all Environmental Assessments (EA). There will be no new starts in interpretive planning. The existing trail plans will be maintained. There would be participation with S.H.P.O. in the development of statewide and forest wide archaeological plans, such as the recently approved, "archaeological elements for the Nevada Historic Preservation Plan." RIM will be maintained to FSM/Forest Service Handbook (FSH) standards. For Cultural Resource Inventory, select areas to be inventoried based on issues, values, risks, and input from S.H.P.O.. A Forestwide cultural resources overview, based on archival review will be developed. The existing trail system inventory will be maintained. Enhance cultural resources only after meeting project mitigation and protection needs. Special use responses will be handled at 75% of maximum efficiency. Developed sites will be patrolled daily during use season on the Carson (D-1), Bridgeport (D-2), and Las Vegas (D-5) Districts; and every other day in Central Nevada. This goal calls for striving to provide the current RIM managed season capacity while maintaining RIM Condition Class 2. Minimum legal requirements for ORV administration will be met. Trail reconstruction should be one mile per year based on management team priority. See Forestwide Standards and Guidelines for the trail maintenance schedule.

Wildlife. Same as Goal 1 with the following exceptions:
The process to establish, conduct, and analyze studies will not change through the management prescriptions. However, the number of studies implemented, or the purposes for establishment will change. In addition, range studies will be conducted on a site specific basis, particularily on those areas with a wildlife management emphasis. Plans and inventories will be developed on a case-by-case basis. The number of plans and/or inventories will increase over Goal 1. Project related work will increase, increasing the need for prescriptions. The level of monitoring will increase over Goal 1. Where not conflicting with other more important resource values, threatened and endangered species whould be relocated in unoccupied habitat. Consultation and Cooperation will increase over Goal 1. Non-structural improvement will be used for other wildlife in addition to the management indicator species. Structural habitat improvement will be used for management indicator species, and other selected wildlife species.

Range. This prescription is the same as Goal 1 but has the following exceptions:

This prescription represents about a 25 percent increase in resource management over the minimum level prescription allowing a proportionate increase in implementation of the Forest Range Action Plan. Allotment Management Plans for the high priority allotments are maintained so that implementation of the plan is scheduled and objectives are met. Allotment Management Plans for moderate priority allotments are maintained to insure that objectives to correct range deterioration are met. Low priority allotments are maintained commensurate with the available resources.

Range Analysis is performed under the Goal 1 criteria but updating other than new or major updates, is a normal task that is done as a part of maintaining AMP's for the high priority allotments.

Wild Free-Roaming Horses and Burros. This prescription is the same as Goal 1 except that emphasis is placed on the removal of WH&B increasing on National Forest System lands outside of territories.

Timber. The following are the same as Goal 1:
Timber resource management planning and inventories for Las Vegas timber stands, pinyon/juniper stands, unregulated forest land and pesticides; silvicultural examinations and prescription guidelines; reforestation guidelines; timber stand improvement guidelines; fuelwood preparation and administration standards; pinyon pine nut standards; Christmas tree standards; post and pole standards; pinyon/juniper cordwood standards; other misc. forest product sale standards; insect and disease surveys and suppression guidelines; treatment of activity fuel guidelines; law enforcement guidelines; support for timber guidelines; and cultural inventory standards.

This prescription is the same as Goal 1 with the following exceptions:
All necessary work will be completed to develop, prepare and maintain the timber resource portion of the Forest plan. The timber portion of the forest plan will be maintained and updated annually to reflect needed changes. Timber management control records including TMIS will be maintained annually. Silvicultural examination and stand treatment need identification will be accomplished every 20 years on all available timber land. Use stand examination information for site specific data (such as volume/acre, growth rates, etc.) for timber planning.

Silvicultural examinations in pinyon/juniper stands do not have to follow regional publication "Stand Examination Procedures." The examination procedure should utilize an existing procedure or be designed to produce the following information; 1) Acres from which fuelwood pinyon nuts, Christmas trees, and posts and poles can be produced, 2) Volume or amounts of all these products that can be produced, and 3) Current accessibility to above acres or need and possibility for building roads to above acres.

Natural regeneration stocking will meet stocking levels prior to scheduling final removal cut of shelterwood standard. Schedule planting could be considered if natural regeneration success is poor. Research should be promoted to determine the best thinning schedule and stocking level to provide the best volume growth per acre. Stands will be scheduled by priority of need for treatment from insect and disease standpoint. Moderate acres per year will be thinned.

Timber will be managed for moderate levels of outputs of sawlogs and and products. There will be a mixture of management intensities. The following are the silvicultural standards by species:

Jeffrey and Lodgepole Pine
Silvicultural Standard: Two step shelterwood - Rotation age 130 years
1st step - Seed Cut - Remove 80% of existing volume
2nd step - Removal Cut - Remove remaining overstory volume
Thinning cycle - 20 years

Mixed Conifer
Silvicultural Standard: Three-step shelterwood - Rotation age 130 years
1st step - Preparation Cut - Remove 60% of existing volume
2nd step - Seed Cut - Remove 1/2 of remaining volume
3rd step - Removal Cut - Remove remaining overstory volume
Thinning cycle - 20 years.

Jeffrey, Lodgepole Pine and Mixed Conifer
Silvicultural Standard: Three-step shelterwood - extended rotation of 200 years
1st step - Preparation Cut - Remove 60% ov existing volume
2nd step - Seed Cut - Remove 1/2 of remaining volume
3rd step - Removal Cut - Remove remaining overstory volume
Thinning Cycle - 40 years

Jeffrey, Lodgepole Pine and Mixed Conifer
Silvicultural Standard: Clearcut - Rotation age 130 years
1st step - Clearcut - Remove all existing volume
Maximum clearcut size - 20 acres
Assure that the area is reforested either by natural or artificial regenration.
Thinning cycle - 20 years

Jeffrey, Lodgepole Pine and Mixed Conifer
Silvicultural Standard: Selection - Uneven-aged Stand Structure
Generally all trees greater than.24 inches DBH are cut. Control of stand is to maintain the desired age class distribution. Maintain approximately 150 basal area per acre.
Cutting cycle - 20 years

Jeffrey, Lodgepole Pine and Mixed Conifer
Silvicultural Standard: Sanitation Cut (salvage)
Removal of dead, dying, deteriorating or susceptible trees.
Cutting cycle - whenever needed

Jeffrey, Lodgepole Pine and Mixed Conifer
Silvicultural Standard: Special Cut
Removal of trees for other than silvicultural purposes.
Utilize for sawtimber those trees with a diameter at breat heights (DBH) of 12 inches or greater.
As a minimum follow Regions 5-year timber sale planning process to insure timely completion of steps to completed timber sale.

For wildlife purposes, a minimum number of snags will generally be left as follows: 1) on timber land leave 1.08 snags/acre, 2) in aspen/riparian areas leave 3.08 snags/acre, and 3) around openings leave 4 snags/acre.

Timber products will be provided from all components. The timber management goal is a moderate MCF output on a sustained yield basis. Timber management will be strongly influenced by economics with intensive and non-intensive management occuring. The stands chosen for management will be those with the best PNV. The determination of sustained yield MCF output and management will be based upon an examination of the economics involved in applying various management schemes to the species strata. Of the various species managed on the Toiyabe, Jeffrey pine and western white pine are the most valuable. The species price differential, logging costs, different thinning schemes, different regeneration methods, and rotation lengths comprise the major areas affecting economics and amount of output.

The thinning schemes during a rotation proposed are:

No thinning

One thinning - precommercial
One thinning - commercial
One thinning - precommercial with two thinnings commercial
One thinning - precommercial with three thinning commercial

The timing options of the thinning cuts must also be examined. Experience on the Toiyabe indicates that shelterwood harvest and natural regeneration are the most workable for timber management. A moderage level of other timber products (mostly fuelwood) would also be provided.

Any shelterwood silvicultural standard can be applied within maximum modification, modification, and partial retention visual resource zones. Clearcut silvicultural standard can be applied in maximum modification visual resource zones. In modification visual resource zones, patch cuts can be applied but no larger than 5 acres. In partial retention visual resource zones patch cuts can be applied but no larger than 1 to 2 acres. Within retention visual resource zones, only salvage and selection silvicultural standards can be applied.

For species included in timber base, current insect and disease problem areas will be treated to attempt to control problems. Thinning of stands will be the primary way for prevention of bark beetles and for treating dwarf mistletoe. Small clearcuts can also be used for treating dwarf mistletoe provided the cut will fit within scheduled harvest. Fuel treatment standards will be developed and implemented for the Forest.

Timber emphasis by intensity:

TIMBR2 FH--FH and TIMBH2 FH--FH - In the existing stand, under the even-aged management system this prescription involves management of the existing stand by application of only a final harvest cut with no commercial thinning during the rotation. The final harvest cut may be a shelterwood cut, or a clearcut. For existing stands implementation may occur from age: 120 to 320 for Jeffrey Pine, 120 to 370 for Mixed Conifer, and 120 to 350 for Lodgepole Pine. In the retention zones, implementation of selection silvicultural standard occurs.

Following rotation, under even-aged managment system, this prescription involves management of the subsequent stand by application of only a final harvest cut with no commercial Thinning during the rotation. The final harvest cut may be a shelternwood cut or a clearcut. For the subsequent stands, implementation may occur from age: 120 to 130 for Jeffrey Pine, 120 to 130 for Mixed Conifer, and 120 to 130 for Lodgepole Pine. In the retention zones, implemenation of selection silvicultural standard occurs.

TIMBR2 FH-2CT and TIMBH2 FH-2CT - In the existing stand, under the even-aged management system this prescription involves management of the existing stand by application of only a final harvest cut with no commercial thinning during the rotation. The final harvest cut may be a shelterwood cut, or a clearcut.For existing stands implementation may occur from age: 120 to 320 for Jeffrey Pine, 120 to 370 for Mixed Conifer, and 120 to 350 for Lodgepole Pine. In the retention zones, implementation of selection silvicultural standard occurs.

Following rotation, under the even-aged management system, this prescription

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involves management of the subsequent stand by application of a final harvest cut with 2 commercial thins during the rotation. The final harvest cut may be a shelterwood cut or a clearcut. For the 2 intermediate thins, implementation of the first may occur at ages 80 or 90 with the second thin on a 20 year cycle in the rotation prior to the final harvest. Implementation of final harvest may occur from age: 120 to 130 for Jeffrey Pines, 120 to 130 for Mixed Conifer, and 120 to 130 for Lodgepole Pine. In the retention zones, implementation of selection silvicultural standard occurs.

TIMBR2 FH-3CT and TIMBH2 FH-3CT - In the existing stand, under the even-aged management system this prescription involves management of the existing stand by application of only a final harvest cut with no commercial thinning during the rotation. The final harvest cut may be a shelterwood cut, or a clearcut. For existing stands implementation may occur from age: 120 to 320 for Jeffrey Pine, 120 to 370 for Mixed Conifer, and 120 to 350 for Lodgepole Pine. In the retention zones, implementation of selection silvicultural standard occurs.

Following rotation, under the even-aged management system, this prescription involves management of the subsequent stand by application of a final harvest cut with 3 commercial thinnings during the rotation. The final harvest cut may be a shelterwood cut or a clearcut. For the 3 intermediate thins, implementation of the first may occur at ages 60 or 70 with the other thins on a 20 year cycle in the rotation prior to the final harvest. Implementation of final harvest may occur from age: 120 to 130 for Jeffrey Pines, 120 to 130 for Mixed Conifer, and 120 to 130 for Lodgepole Pine. In the retention zones, implementation of selection silvicultural standard occurs.

TIMBR2 2CT-FH and TIMBH2 2CT-FH - For the existing stand, under the even-aged management system, this prescription involves management of existing stands by application of final harvest cut with 2 commercial thinnings during the rotation. This final harvest cut may be a shelterwood cut or a clearcut. For the 2 intermediate thins, implementation of the first may occur at ages 80 or 90 with the second thin on a 20 year cycle in the rotation. Implementation of final harvest may occur from age: 120 to 320 for Jeffrey Pine, 120 to 370 for Mixed Conifer, and 120 to 350 for Lodgepole Pine. In the retention zones, implementation of selection silvicultural standard occurs.

In the existing stand, under the even-aged management system this prescription involves management of the existing stand by application of only a final harvest cut with no commercial thinning during the rotation. The final harvest cut may be a shelterwood cut, or a clearcut. For existing stands implementation may occur from age: 120 to 130 for Jeffrey Pine, 120 to 130 for Mixed Conifer, and 120 to 130 for Lodgepole Pine. In the retention zones, implementation of selection silvicultural standard occurs.

TIMBR2 2CT2CT and TIMBH2 2CT2CT - For the existing stand, under the even-aged management system, this prescription involves management of existing stand by application of final harvest cut with 2 commercial thinnings during the rotation. This final harvest cut may be a shelterwood cut or a clearcut. For the 2 intermediate thins, implementation of the first may occur at ages 80 or 90 with the second thin on a 20 year cycle in the rotation. Implementation of final harvest may occur from age: 120 to 320 for Jeffrey Pine, 120 to 370 for Mixed Conifer, and 120 to 350 for Lodgepole Pine. In the retention zones, implementation of selection silvicultural standard occurs.

Following rotation, under the even-aged management system, this prescription involves management of subsequent stand by application of final harvest cut with 2 commercial thinnings during the rotation. This final harvest cut may be a shelterwood cut or a clearcut. For the 2 intermediate thins, implementation of the first may occur at ages 80 or 90 with the second thin on a 20 year cycle in the rotation. Implementation of final harvest may occur from age: 120 to 130 for Jeffrey Pine, 120 to 130 for Mixed Conifer, and 120 to 130 for Lodgepole Pine. In the retention zones, implementation of selection silvicultural standard occurs.

TIMBR2 2CT3CT and TIMBH2 2CT3CT - For the existing stand, under the even-aged management system, this prescription involves management of existing stand by application of final harvest cut with 2 commercial thinnings during the rotation. This final harvest cut may be a shelterwood cut or a clearcut. For the 2 intermediate thins, implementation of the first may occur at ages 80 or 90 with the second thin on a 20 year cycle in the rotation. Implementation of final harvest may occur from age: 120 to 320 for Jeffrey Pine, 120 to 370 for Mixed Conifer, and 120 to 350 for Lodgepole Pine. In the retention zones, implementation of selection silvicultural standard occurs.

Following rotation, under the even-aged management system, this prescription involves management of the subsequent stand by application of a final harvest cut with 3 commercial thinnings during the rotation. The final harvest cut may be a shelterwood cut or a clearcut. For the 3 intermediate thins, implementation of the first may occur at ages 60 or 70 with the other thins on a 20 year cycle in the rotation prior to the final harvest. Implementation of final harvest may occur from age: 120 to 130 for Jeffrey Pines, 120 to 130 for Mixed Conifer, and 120 to 130 for Lodgepole Pine. In the retention zones, implementation of selection silvicultural standard occurs.

TIMBR2 3CT-FH and TIMBH2 3CT-FH - For the existing stand, under the even-aged management system, this prescription involves management of the subsequent stand by application of a final harvest cut with 3 commercial thinnings during the rotation. The final harvest cut may be a shelterwood cut or a clearcut. For the 3 intermediate thins, implementation of the first may occur at ages 60 or 70 with the other thins on a 20 year cycle in the rotation prior to the final harvest. Implementation of final harvest may occur from age: 120 to 320 for Jeffrey Pines, 120 to 370 for Mixed Conifer, and 120 to 350 for Lodgepole Pine. In the retention zones, implementation of selection silvicultural standard occurs.

In the existing stand, under the even-aged management system this prescription involves management of the existing stand by application of only a final harvest cut with no commercial thinning during the rotation. The final harvest cut may be a shelterwood cut, or a clearcut. For existing stands implementation may occur from age: 120 to 130 for Jeffrey Pine, 120 to 130 for Mixed Conifer, and 120 to 130 for Lodgepole Pine. In the retention zones, implementation of selection silvicultural standard occurs.

TIMBR2 3CT2CT and TIMBH2 3CT2CT - For the existing stand, under the even-aged management system, this prescription involves management of the subsequent stand by application of a final harvest cut with 3 commercial thinnings during the rotation. The final harvest cut may be a shelterwood cut or a clearcut. For the 3 intermediate thins, implementation of the first may occur at ages 60 or 70 with the other thins on a 20 year cycle in the rotation prior to the final harvest. Implementation of final harvest may occur from age: 120 to 320 for Jeffrey Pines, 120 to 370 for Mixed Conifer, and 120 to 350 for Lodgepole Pine. In the retention zones, implementation of selection silvicultural standard occurs.

Following rotation, under the even-aged management system, this prescription involves management of existing stand by application of final harvest cut with 2 commercial thinnings during the rotation. This final harvest cut may be a shelterwood cut or a clearcut. For the 2 intermediate thins, implementation of the first may occur at ages 80 or 90 with the second thin on a 20 year cycle in the rotation. Implementation of final harvest may occur from age: 120 to 130 for Jeffrey Pine, 120 to 130 for Mixed Conifer, and 120 to 130 for Lodgepole Pine. In the retention zones, implementation of selection silvicultural standard occurs.

TIMBR2 3CT3CT and TIMBRH2 3CT3CT - For the existing stand, under the even-aged management system, this prescription involves management of the subsequent stand by application of a final harvest cut with 3 commercial thinnings during the rotation. The final harvest cut may be a shelterwood cut or a clearcut. For the 3 intermediate thins, implementation of the first may occur at ages 60 or 70 with the other thins on a 20 year cycle in the rotation prior to the final harvest. Implementation of final harvest may occur from age: 120 to 320 for Jeffrey Pines, 120 to 370 for Mixed Conifer, and 120 to 350 for Lodgepole Pine. In the retention zones, implementation of selection silvicultural standard occurs.

Following Rotation, under the even-aged management system, this prescription involves management of the subsequent stand by application of a final harvest cut with 3 commercial thinnings during the rotation. The final harvest cut may be a shelterwood cut or a clearcut. For the 3 intermediate thins, implementation of the first may occur at ages 60 or 70 with the other thins on a 20 year cycle in the rotation prior to the final harvest. Implementation of final harvest may occur from age: 120 to 130 for Jeffrey Pines, 120 to 130 for Mixed Conifer, and 120 to 130 for Lodgepole Pine. In the retention zones, implementation of selection silvicultural standard occurs.

TIMBR2 NONCUT and TIMBH2 NONCUT - Goal 2 was selected, but due to economics, the stand will not be managed for sawlog production. No stand management prescriptions.

Soil and Water. Same as Goal 1 with the following exceptions: Inventories will used on a minimal basis to provide data specific to timely resource conflicts. Planning will be reactionary in scope. Correct unsatisfactory watershed conditions will be corrected by treating high value areas in a cost effective manner where conditions are in a active state of degradation. Treatment will be done on a priority basis with consideration for the highest resource values and risk of resource loss. Maintenance schedule will reflect 33% of maintenance needs annually. Monitoring levels will increase as resource work activities increase. Selected snow courses and rain guages will be read.

Minerals. Same as Goal 1 with the following exceptions:
The number of inventories increase slightly over Goal 1. Mineral withdrawls will be considered. Land exchanges and acquisitions will increase. A detailed assessment of 80% of the NOI's and OP's submitted on the Forest will be conducted.

Fire Management. Same as Goal 1 with the following exceptions:
For Fire Prevention, there will be passive media coordination and management of seasonal restrictions forest-wide. CFFP material will be purchased and distributed randomly (See Forestwide Standards and Guidelines for details on distribution by district). Utize public and cooperator detection to the fullest. Supplement by force account, as needed, to keep burned acres at an acceptable level. Modify fuels to reduce hazard to meet VQP's in harvest and other activity areas. Initiate limited treatments of natural fuels (as part of the Sierra Front Initiative) to reduce severe life and property hazards. For fuel break construction, projects will have the following priority: 1) protect life and property, 2) protect the highest resource values, and 3) to provide optimal multi-resource benefits.

Facilities. Same a Goal 1 with the following exceptions:
Under transportation system planning and inventory, develop area plans for high use areas other than timber to accomplish resource management objectives. Complete one district per year. For road operation, develop a priority list of arterial and collector roads to initiate traffic studies and determine roads with questionable jurisdiction. Develop a road operation plan which includes maintenance management and provides coordination instructions for regulation and control of traffic forestwide. Increase maintenance activities 26% to include lower priorities. Facility maintenance will be increased. Primary and secondary base series will be updated at least once a years. Transportation planning will be accomplished in conjunction with timber sale preparation activities starting at least five years prior to scheduled sale date. Timber purchaser activities will comply with Timber Sale contract sections on road construction and reconstruction. Approximately one half the total miles of road with primary resource value of timber will be maintained annually. Dam administration and management is the same as Goal 1.

Same as Goal 4:
All preconstruction engineering, construction and reconstruction activities for arterial and collector roads and for all trails.

Same as Goal 3:
FA&O construction and reconstruction.

GOAL 3 - Low intensity management:

Purpose: This is low intensity thrust that emphasizes a mixture of both non-commodity and commodity outputs.

FORPLAN Level 7 (Management Emphasis) Identifiers for Goal 3:

--Goal 3 - Applied to all analysis areas in Central Nevada and Mt. Charleston portion of the forest.

--Timber 3 - A goal 3 prescription applied to all commercial timber analysis areas on the Carson District (Sierra).

--Timber Haul 3 - A goal 3 prescription applied to all commercial timber analysis areas on the Bridgeport District (Sierra).

--Range 3 - A goal 3 prescription applied to all non-commercial timber analysis areas in Central Nevada, range allotment analysis areas in the Sierra.

Major Forestwide "Functional" Standards & Guidelines by Resource:

Recreation. The following are the same as Goal 1:
The cultural resource inventory standards, visual quality inventory, visual absorption inventory, cultural resource evaluation standards, cultural rescurce protection guidelines, law enforcement guidelines and standards, cooperative law enforcement, and search and rescue.
The rest of the activities occuring under Recreation for goal 3 are the same as goal 2.

The following describes the differences from Goal 1 and 2:
This prescription fully maintains the RIM system. Cultural Resource Evaluation will be made on sites with National Register potential, where continued degradation may endanger ther integrity of the site. Under this goal an average of one site per five years will be nominated to the National Register. Cultural resource protection will occur on sites with nation register potential. Maintain recreation sites to RIM Condition Class 1 or 2 levels. Administration of recreation special use sites, and patrol is at a slightly higher intensity of administration than Goal 2.

Wildlife. The following are the same as Goal 1:
Administration planning cooperation; surveys; inventories and planning; and prescriptions.

The following are the same as Goal 2:
Wildlife studies; monitoring; threatened and endangered species recovery efforts; consultation; Cooperation; non-structural habitat improvement projects; structural habitat improvement projects; and structural habitat maintenance projects.

The following describes the additions to goal 2:
For wildlife studies, in addition to goal 2, more range studies will be converted. Timber compartment exams will incorporate the collection of wildlife habitat information. Studies will increase over goal 2. More areas will be adjusted to a wildlife management emphasis. These areas will need inventories and plans. The number of plans and/or inventories will increase over goal 2. All projects within key wildlife habitats will have prescriptions written for them. The number of prescriptions, level of monitoring, consultation, and cooperation will increase over goal 2.

Range. This prescription is similar to Goal 2 except that emphasis is placed on directing resources into range improvements to arrest range deterioration on all allotments under an AMP. Management emphasis is on extensive rather than intensive grazing systems.

Wild Free-Roaming Horses and Burros. This prescription is the same as Goal 2.

Timber. The following are the same as Goal 2:
Timber resource management planning and inventory standards and guidelines; silvicultural examination and prescription guidelines; reforestation (backlog); timber stand improvement guidelines; fuelwood sale preparation and administration standards; pinyon pine nut standards; Christmas tree standards; post and pole standards; pinyon/juniper cordwood standards; other misc. forest product standards; insect and disease surveys and suppression guidelines; treatment of activity fuel guidelines; law enforcement standards and guidelines; support for timber guidelines; and cultural inventory standards.

The following describes the deviations from goal 2:
Stand examinations will only be done to identify stands with insect or disease problems that need treatment to maintain the stand. Stand examinations will be done prior to thinning treatments. Reforestion needed per existing KV plans will be completed, and work on the most promising sites. Timber stand improvements needed per existing KV plans will be completed, and a low level of acres are thinned to provide a continuing low level of fuelwood. Timber will be managed for outputs of moderate levels of products while maintaining sawlog production capability. Apply timber sale preparation and administration around and within developed recreation sites, and in insect and disease control work. For wildlife purposes a minimum number of snags will generally be left as follows: 1) on timber land leave 1.44 snags/acre, 2) in aspen/riparian areas leave 4.8 snags/acre, and 3) around openings leave 4 snags/acre. A moderate level of timber products (mostly fuelwood) will be provided from all components. Sales of fuelwood will continue to be made through the timber stand improvement, and insect and disease control programs. Small clearcuts and thinning can be used for treatment of dwarf mistletoe. Treatment of insect and disease problems is undertaken instead of prevention of problems. Fuel treatment standards will be developed and implemented for the Forest through coordination with The Sierra Front Initiative Vegetative Management Plan.

TIMBR3 and TIMBH3 - No sawlog sales under this goal, so, no stand managment prescriptions.

Soil and Water. The following are the same as Goal 1:
Soil and water improvement Guidelines, administration management, rights/use management, maintenance, and monitoring.

The following are the same as Goal 2:
Soil and water improvement standards.

The following describes the deviations from goals 1 and 2:
Highly significant watersheds will be inventoried. This will eliminate some of the reactionary facets of watershed management. Plans will be based on these inventories. Maintenance will be to reflect 60% of maintenance needs annually. Soil and water resource monitoring will be implemented on a representative sample of all activities that have the potential to degrade the soil and/or water resources, as a check on BMP implementation and effectiveness. All snow courses and rain guages will be read.

Minerals. The following are the same as Goal 1:
General technical inventory and evaluation standards; the site specific technical investigation standards; processing of exploration proposals; processing of lease applications; processing of site specific development

proposals, administration; and contests hearings and appeals.

The following are the same as Goal 2:
The general technical inventory and evaluation guidelines; and the site specific technical investigation guidelines.

The following describes the deviations form goals 1 and 2:
Mineral withdrawls will be considered a management option in resolving land use conflicts. Inventories for special interest geologic areas and common variety mineral materials would be implemented on a minimum scale. A process by which geologic hazard areas are identified will be developed on the Forest. A detailed assessment of 90% of the oeprating plans and/or Notices of Intent on the Forest will be conducted. The prescription is the same as described under Goal 2. Municipal watersheds will be added to the sensitive area list.

Fire Management. The following are the same as Goal 1:
Fire reinforcements; treatment of active fuel standards; and fuel treatment and area maintenance.

The following are the same as Goal 2:
Treatment of active fuels guidelines; and fuelbreak construction.

The following describes additions and deviations from goals 1 and 2:
Fire prevention will be at Level 2 (aggressive). There will be positive media exposure, prompt fire investigation and follow-up. There will also be aggressive hazard inspections and use of fire restrictions when necessary. Public contact will be through interagency field personnel and the media. All efforts will be intensified during periods of high fire danger and high use periods. Site specific hazard reduction will be made where appropriate. In addition to goal 2, this goal calls for joining and integrating with BLM lightning detection system for the Sierra and Las Vegas, on a limited basis. The size and effectiveness of initial attack organization will increase. Initial attack forces will be selected and cross-trained to productively support other elements and activities when pre-suppression objectives have been met, and when not on fires. Cooperative effort and interagency NIIMS involvement will increase in intensity. Interagency overhead teams will be established under a unified command concept. The role of joint dispatching will increase. Capitalize on opportunities to upgrade support functions on an interagency basis. Integrate natural fuel treatment for hazard reduction will be integrated with all other resource needs on an interdisciplinary basis. Interagency programs and involvement will increase wherever feasible.

Facilities. The following are the same as Goal 1:
Bridge and major culvert preconstruction and reconstruction; facility maintenance standards; and dam administration and management.

The following are the same as Goal 2:
Transportation system planning and inventory standards; road operation standards; FA&O construction and reconstruction; and geometronics.

The following are the same as Goal 4:
All reconstruction engineering, construction, and reconstruction activities for arterial/collector roads and trails.

The following describes the deviations from Goals 1 and 2:
Transportation system analysis will be performed on the entire system. Site surveys will be prepared for high priority structures as determined from the bridge replacement plan. At least one bridge per decade will be replaced. At least one deferred maintenance project per year will be accomplished. There will be a 120% increase in facility maintenance for high priority district projects as determined by the management team. Potable water systems standards are the same as Goal 1 for minimum or base O&M. There will be a 30% increase to engineering for select supply and treatment systems to gather data for condition survey reports.

GOAL 4 - An amenity and non-commodity prescription:

Purpose: A management thrust that emphasizes amenities and non-commodity outputs such as dispersed recreation, wildlife, fish, and soil & water.

FORPLAN Level 7 (Management Emphasis) Identifiers for Goal 4:

--Goal 4 - Applied to all analysis areas in Central Nevada and Mt. Charleston portion of the forest.

--Timber 4 - A goal 4 prescription applied to all commercial timber analysis areas on the Carson District (Sierra).

--Timber Haul 4 - A goal 4 prescription applied to all commercial timber analysis areas on the Bridgeport District (Sierra).

--Range 4 - A goal 4 prescription applied to all non-commercial timber analysis areas in Central Nevada, range allotment analysis areas in the Sierra.

Major Forestwide Standards and Guidelines by Resource:

Recreation. The following are the same as Goal 1:
Cultural resource inventory standards; cultural resource evaluation standards; cultural resource protection guidelines; law enforcement guidelines; and the cooperative law enforcement guidelines.

The following are the same Goal 2:
General recreation planning guidelines; interpretive planning standards; cultural resource planning guidelines; general recreation inventory guidelines; cultural resource inventory guidelines; cultural resource overviews guidelines; trail inventory guidelines; administration and operation of interpretive sites standards; administration of special use sites; recreation special use administration; and trail system operations.

The following are the same as Goal 3:
RIM inventory; cultural resource protection standards, administration and operation of recreation sites; maintenance standards of recreation sites; and resource treatment standards.

The following describes variations from Goals 1, 2, and 3:
Recreation planning will be at a level that emphasizes enhancement of

dispersed recreation opportunities. In addition to the guidelines for Goal 2, complete quality dispersed area plans will be done for all significant use areas. This Goal incorporates dispersed recreation trends, projections, and long range resource needs in plans. Interpretive plans for all ranger districts will be completed and updated. This prescription calls for refining xisting trail plans to insure responsiveness to increasing dispersed use. This Goal improves the quality of data gathered on dispersed recreation use and the opportunities in areas of heavy use. Programmatic cultural resource inventory will be conducted in support of VIS and enhancement opportunities. Visual quality inventories will be refined overall. Visual absorption inventories will be intensified. This Goal updates trail condition surveys. Evaluate all significant cultural resource properties. One cultural resource property annually will be nominated to the National Register until the potential is reached. Cultural resource properties will be enhanced based on and in coordination with VIS and interpretive plans. Dispersed facilities will be constructed as needed to protect public health & safety, and to reduce environmental degradation. Sanitation and trailhead facilities will be added as appropriate based on use. Selected interpretative facilities will be constructed. Coop level will increase with the Inyo National Forest. Visual Information Service (VIS) activities will be intensified in heavy use areas. Interpretive services will be integrated with administration of dispersed use. Fully administer Off-Road Recreation Vehicle (ORV) plans will be fully administered with optimum signing and patrolling. Trails will be constructed where needed to accommodate increasing use (an average of 5-7 mile annually).

Wildlife. All standards and guidelines are the same as Goal 1, with the following exceptions and additions:
Wildlife studies will be systematically established in all key wildlife habitats on the Forest. All range studies will be converted to habitat studies. Timber compartment exams will reflect habitat data base needs. Studies will increase over Goal 3. Habitat management plans will be systematically developed for all areas on the Toiyabe National Forest. The plans will be developed in the same manner we currently generate allotment management plans. The number of plans and/or inventories will increase over Goal 2. Prescriptions will be developed for every project impacting wildlife habitat. The level of monitoring, and consultation will increase over Goal 3. Non-structural, and structural habitat improvement projects will be considered for all wildlife species.

Range. This prescription is similar to Goal 3.

Wild Free-Roaming Horses and Burros. This prescription is similar to Goal 2 but has the following exceptions:
All objectives in Territory Management Plans will be met. Analysis of the management situation will be conducted to determine if vacant territories should be eliminated or if they have potential for being re-stocked. A similar analysis is conducted to determine if territory boundaries should be adjusted or remain as established in 1971. Opportunities to enhance WH&B requirements within existing territories will be explored.

Timber. The following are the same as Goal 1:
Timber resource management planning and inventory guidelines; timber resource management planning and inventory standards and guidelines for Las Vegas, pinyon/juniper, unregulated forest land, and pesticides; silvicultural examination and prescription guidelines; reforestation (backlog) guidelines;

timber stand improvement (backlog) guidelines; fuelwood preparation and administration standards; pinyon pine nut standards; Christmas tree standards; post and pole standards; pinyon pine/juniper cordwood standards; other misc. forest product sale standards; insect and disease surveys and suppression guidelines; treatment of activity fuel guidelines; law enforcement guidelines; support for timber guidelines; and cultural inventory standards.

The following are the same as Goal 2:
The silvicultural standards.

The following are deviations from either Goal 1 and/or 2:
Stand examinations will be completed before any vegetative manipulation or cultural treatment and within areas of insect or disease problems. Natural regeneration tries will be checked 3 years after harvest. If not adequate for stocking standards, planting will be scheduled. The best residual basal area will be utilized to maximize stand growth, except that the residual basal area controlled more by wildlife habitat needs. A low level of acres would be thinned to support the fuelwood program. The timber management for sawlogs will be in response to other resource needs, and products will be produced at a moderate level. For wildlife purposes a minimum number of snags will generally be left as follows; 1) for timber lands leave 1.8 snags/acre, 2) for aspen/riparian areas leave 4.8 snags/acre, and 4) around openings leave 4 snags/acre. A low level of MCF output of timber by commercial sawlog sales will likely occur as the result of wildlife habitat improvement projects. A moderate level of timber products (mostly fuelwood) will be provided from all components. Samll clearcuts and thinning can be used for treatment of dwarf mistletoe. Treatment of insect and disease problems is undertaken instead of prevention of problems. Fuel treatment standards for the Forest will be developed and implemented through coordination with the Sierra Front Initiative Vegetative Management Plan. Law enforcement activities have a high priority. A law enforcement plan will reflect a high level of planned work and training for timber law enforcement activities. The law enforcement plan will emphasize prevention measures. Patrols and projects for law enforcement in timber areas will be planned and implemented. Timber needs .45 person/years under this goal.

TIMBR4 FH--FH and TIMBH4 FH--FH - same as goal 2.
TIMBR4 FH-2CT and TIMBH4 FH-2CT - "
TIMBR4 FH-3CT and TIMBH4 FH-3CT - "
TIMBR4 2CT-FH and TIMBH4 2CT-FH - "
TIMBR4 2CT2CT and TIMBH4 2CT2CT - "
TIMBR4 2CT3CT and TIMBH4 2CT3CT - "
TIMBR4 3CT-FH and TIMBH4 3CT-FH - "
TIMBR4 3CT2CT and TIMBH4 3CT2CT - "
TIMBR4 NONCUT and TIMBH4 NONCUT - "

Soil and Water. This prescription is the same as Goal 1 with the following additions:
All Forest watersheds will be prioritized for implementation of inventories. Improvement projects will be completed (as identified through planning) on all forest watersheds. All water claims will be quantified. Maintenance will be scheduled to reflect 100% of maintenance needs annually. Monitoring plans will be developed and implemented for the analysis area.

Minerals. All standards and guidelines are the same as Goal 1 with the

following additions:
Districts will inventory and prioritize lands for mineral withdrawl. Withdrawls will be encouraged as a process to solve incompatible resource conflicts. Land acquisitions would be accelerated, requiring greater mineral evaluation effort. Non-commodity resources will be emphasized during the acquisition of lands. Districts will implement an inventory and evaluation process for special interest geologic areas. A process by which geologic hazard areas could be inventoried will be developed. Inventories for common variety mineral materials will not be implemented. Key wildlife habitats, and significant dispersed recreation sites will be added to the sensitive area list. Reclaimation measures will be required on all operations.

Fire Management. The following are the same as Goal 1:
Fuel treatment area maintenance.

The following are the same as Goal 2:
Fuelbreak construction.

The rest of the activities are the same as Goal 3 with the following additions:
A D-4 or equivalent size tractor will be acquired for suppression and project work. Complete forestwide fuel inventories will be needed for comprehensive multi-resource vegetation managment plan(s). Emphasis will be on the Sierra Front, Las Vegas, and other priority areas.

Facilities. The following are the same as Goal 1:
Transportation system planning and inventory; and dam administration and management.

The following are the same as Goal 2:
Road operation standards; geometronics; transportation planning for timber; arterial/collector and local road preconstruction engineering, construction, and reconstruction; timber purchaser construction and reconstruction; road maintenance, and land line location.

The following are the same as Goal 3:
Bridge & major culvert preconstruction and reconstruction; and facility maintenance.

The following describes deviations and additions to Goals 1, 2, and 3:
Transportaion system analysis will be initiated on the entire system. Area plans will be developed for all areas on at least one district per year for all resources other than timber to accomplish resource management goals. For arterial/collector preconstruction engineering, construction, and reconstruction; road standards will be held to the minimum necessary to provide a safe facility with minimum impact on resource including visuals. Highest priority will be given to reconstructing existing arterial/collector roads to a maintainable standard before extensive construction of new facilities. Trail location and re-location will be in areas to minimize resource impact, including visuals. Trails will be located to minimized impact in key wildlife habitat. Dam administration and management, operation and maintenance (O&M) is the same as Goal 1, with a technical inspection performed annually on 50% of the moderate hazard dams.

GOAL 5 - A market prescription:

Pupose: A management thrust that emphasizes timber, range, developed recreation, minerals, and special uses.

FORPLAN Level 7 (Management Emphasis) Identifiers for Goal 5:

--Goal 5 - Applied to all analysis areas in Central Nevada and Mt. Charleston portion of the forest.

--Timber 5 - A goal 5 prescription applied to all commercial timber analysis areas on the Carson District (Sierra).

--Timber Haul 5 - A goal 5 prescription applied to all commercial timber analysis areas on the Bridgeport District (Sierra).

--Range 5 - A goal 5 prescription applied to all non-commercial timber analysis areas in Central Nevada, range allotment analysis areas in the Sierra.

Major Forestwide "Functional" Standards and Guidelines by Resource:

Recreation. The following are the same as Goal 1:
The cultural resource inventory standards; visual quality and absorption inventory; cultural resource evaluation standards; cultural resource nominations; cultural resource protection guidelines; law enforcement, cooperative law enforcement, and search and rescue.

The following are the same as Goal 2:
General recreation planning; visual resource planning; interpretive planning; trail planning; cutural resource planning; general recreation inventory; cultural resource inventory guidelines; cultural resource overviews; trail inventory; administration of recreation special use sites; recreation use administration; recreation special use administration; trail reconstruction; trail system operations; and the trail maintenance guidelines.

The following are the same as Goal 3:
The cultural resource evaluation guidelines; cultural resource nominations; and trail maintenance standards.

The following are the same as Goal 4:
Cultural resource protection standards; and Interpretive sites administration and operation guidelines.

The following describes deviations or additions to Goals 1, 2, 3, and 4:
Recreation planning for Goal 5 is at a level that emphasizes enhancement of developed recreation opportunities. In addition to Goal 2 for general recreation planning, plans will emphasize activities that increase returns to the treasury, and identify opportunities for new revenue-producing concessions and recreation special uses. Interpretive planning will identify opportunities to interpret commodity activities to visitors and the general public. In addition to Goal 2 for general recreation inventory, Goal 5 maintains RIM and refines it for developed sites and composites. This Goal enhances cultural resource properties based on and in coordination with

developed recreation use and plans. Selected sites will be reconstructed to preclude future closure due to deterioration. One or two new developed site will be constructed every decade. All recreation sites will be operated at full service. All cost effective site will be brought up to, and maintained at FSM 2300 standards. This Goal allows the minimum resource treatment necessary to provide safety and prevent accumlulative site degradation; while preparing vegetation managment plans for priority developed sites. Trail construction will be done where needed to enhance developed sites.

Wildlife. The following are the same as Goal 1:
Administration planning cooperation; wildlife studies; surveys, planning standards; prescriptions; monitoring; consultation; cooperation; non-structural and structural habitat improvement; and structural habitat maintenance.

The following are the same as Goal 2:
Surveys, inventory, and planning standards; and threatened and endangered species recovery effort standards.

The following describes the deviation and addition to Goals 1 and 2:
Wildlife studies will be limited to Managment Indicator species. The number of studies undertaken would be the amount necessary to provide data for the maintenance of viable populations of MIS. Prescriptions will be developed for every project impacting wildlife habitat. The level of monitoring and consultation will increase over Goal 4. Non-structural and structural habitat improvements will be restricted to maintain minimum viable populations of Management Indicator Species.

Range. This prescription is similar to Goal 1 but has the following exceptions:
Under this prescription, the Forest Range Action Plan will be fully implemented to obtain optimum forage production and utilization. Range Analysis and the development of Allotment Management Plans will be completed as scheduled. Objectives of implemented AMP's will be met. The implementation of management systems and the installation of range improvements, both structural and non-structural, will be scheduled for high and moderate priority allotments. These later two tasks may or not be as scheduled on low priority allotments. Monitoring will occurr on all allotments as planned. Permittee participation in all management aspects will be sought.

Wild Free-Roaming Horses and Burros. This prescription is the same as Goal 4.

Timber. The following are the same as Goal 2:
Timber resource management planning and inventory standards and guidelines for the Sierras, Las Vegas area, pinyon/juniper, unregulated forested land, and pesticides; silvicutural examination and prescription guidelines; pinyon/juniper stand exam standards; reforestation (backlog) guidelines; timber stand improvement (backlog) guidelines; silvicultural standards; fuelwood sale preparation and administration standards; pinyon pine nut standards; Christmas tree standards; post and pole standards; pinyon/juniper cordwood standards; other misc. forest products sale standards; insect and disease suveys and suppression guidelines; treatment of activity fuel guidelines; law enforcement guidelines; support for timber standards; and cultural inventory standards.

The following are deviations from goal 2:
Silvicultural examination and stand treatment need identification will be accomplished every 10 year on all available timber lands. Stand examination information for site specific data (such as volume/acre, growth rates, etc.) for timber planning will be used. Natural regeneration tries will be checked 3 years after harvest, and if this is not adequate for stocking standards, planting will be scheduled. Research will be conducted to determine the best thinning schedule and stocking level to provide the best volume growth per acre. All stands will be thinned on a cutting cycle of 20 years. Acres thinned per year will be at a high level and should keep all stand growing at optimum rates. Intensive timber management will be attempted to produce high output levels of sawlogs and fuelwood. Intensive timber management will be used in all timber stands. All opportunities to provide fuelwood will be utilized. The timber management goal is a high MCF output on a sustained yield basis. Any silvicultural standard can be applied in any visual zone except within 300 feet of developed recreation sites and along major highways. For species included in the timber base, a high program of work in insect and disease surveys and suppression will be done. Insect and disease detection surveys and evaluations will be accomplished routinely. Emphasis will be placed on identifying high risk potential in stands and determining if prevention efforts are needed to control losses. Emphasis will be placed on thinning overstocked Jeffrey pine stands to reduce the risk of bark beetle attacks. Emphasis will also be placed on dwarf mistletoe surveys and control measures in all timber stands. Small clearcuts which take into consideration other resource values may be used where not normally permitted. Fuel treatment standards for the Forest will be developed. Standards will be used to determine when slash treatment is needed and how much treatment needs to be done to reduce fuel loading to and acceptable level. Coordination with the Sierra Front Initiative Vegetative Management Plan will be used. Slash treatment will be done to either meet fuel loading standards or to a high level of slash reduction if fuel loading standards are lacking. All acres of activity created fuels will be treated.

TIMBR5 FH--FH and TIMBH5 FH--FH - Same as Goal 2
TIMBR5 FH-2CT and TIMBH5 FH-2CT - "
TIMBR5 FH-3CT and TIMBH5 FH-3CT - "
TIMBR5 2CT-FH and TIMBH5 2CT-FH - "
TIMBR5 2CT2CT and TIMBH5 2CT2CT - "
TIMBR5 2CT3CT and TIMBH5 2CT3CT - "
TIMBR5 3CT-FH and TIMBH5 3CT-FH - "
TIMBR5 3CT2CT and TIMBH5 3CT2CT - "
TIMBR5 NONCUT and TIMBH5 NONCUT - "

Soil and Water. The following are the same as Goal 1:
Inventory guidelines; planning guidelines; improvement guidelines; administration management; right/use managment; maintenance guidelines; and monitoring.

The following are the same as Goal 2:
Inventory standards; planning standards; improvement standards; and maintenance standards.

The only addition to these goals is that monitoring will be restricted to the commodity related resource programs.

Minerals. The following are the same as Goal 1:
Processing exploration proposals; processing of lease applications; processing of site specific development proposals; administration; and contests and hearing appeals.

The following are the same as Goal 2:
The general technical inventory and evaluation; and site specific technical investigation.

The following describes the additions and deviation from goals 1 and 2, for goal 5:
The emphasis under this prescription will be to produce minerals while maintaining (at an acceptable level) the non-commodity resources. Mineral withdrawls will be considered only as a last resort to mitigation management. Land exchanges and/or acquisitions be used to obtain land containing commodity related resources. An inventory of special interest geologic areas will not be undertaken. Districts will undertake inventories to determine the location and extent of common variety mineral materials. Validity examinations will be used only on a case-by-case basis. Validity examinations will be used on those projects where reclamation measures cannot adequately mitigate the long-term loss of resources. All NOI's and OP's submitted on the Forest will be processed.

Fire Management. The following are the same as Goal 1:
The District programs for fire prevention.

The following are the same as Goal 2:
Fire detection guidelines; Treatment of activity fuels guidelines; and fuelbreak construction guidelines.

The following are the same as Goal 3:
Fire Prevention guidelines; primary initial attack standards; secondary attack fires guidelines; fire support and facilitating services; fuel management inventory standards; treatment of natural fuels; air operations program; and law enforcement.

The following are the same as Goal 4:
Fire reinforcements.

The following describes the deviations and additions from Goals 1, 2, 3, and 4:
The BLM lightning detection system will be joined and integrated into the system for the Sierra and Las Vegas. The size and effectiveness of the initial attack organization will be increased. Initial attack forces will be cross-trained to productively support other elements and activities when pre-suppression objectives have been met, and when not on fires. For secondary attack fires, cooperative efforts will be intensified and interagency NIIMS involvement increased. An interagency overhead team will be established. This goal will complete all integrated forestwide fuel management inventories needed for comprehensive multiresource vegetation management plans. It will complete plans for Sierra Front, Las Vegas, and other areas where resource opportunities exist. This prescription has the highest level of fuel treatment maintenance.

Facilities. The following are the same as Goal 1:

Facility maintenance; and dam administration and management O&M.

The following are the same as Goal 2:
Geometronics; timber transportation planning; arterial/collector and local road reconstruction engineering, construction, and reconstruction; timber purchaser construction and reconstruction; road maintenance; and land line location.

The following are the same as Goal 4:
Transportation system planning and inventory; preconstruction engineering, construction, and reconstruction for arterial/collector roads and trails; bridge and major culvert preconstruction and reconstruction; road operation standards; and FA&O construction and reconstruction standards.

GOAL 6 - Wilderness prescription:

Purpose: A management thrust that emphasizes wilderness management.

FORPLAN Level 7 (Management Emphasis) Identifiers for Goal 6:

--Goal 6 - Applied to all analysis areas in Central Nevada and Mt. Charleston portion of the forest.

--Timber 6 - A goal 6 prescription applied to all commercial timber analysis areas on the Carson District (Sierra).

--Timber Haul 6 - A goal 6 prescription applied to all commercial timber analysis areas on the Bridgeport District (Sierra).

--Range 6 - A goal 6 prescription applied to all non-commercial timber analysis areas in Central Nevada, range allotment analysis areas in the Sierra.

Major Forestwide "Functional" Standards & Guidelines by Resource:

Recreation. The following are the same as Goal 1:
Cultural resource evaluation standards; cultural resource protection guidelines; law enforcement; and cooperative law enforcement.

The following are the same as Goal 2:
General recreation planning; interpretive planning standards; cultural resource planning; general recreation inventory; cultural resource inventory; cultural resource overiews; trail inventory; some administration and operation of recreation and interpretive site standards; administration of recreation special uses; and trail system operations.

The following are the same as Goal 3:
RIM inventory guidelines; administration and operation of recreation site guidelines; maintenance of interpretive sites; and resource treatment.

The following describes the deviations and additions to goals 1, 2, and 3, to produce goal 6:
Recreation planning will be at a level that emphasizes enhancement of

dispersed recreation opportunities. It calls for completion of quality dispersed area plans for all signifcant use areas. Dispersed recreation trends, projections, and long range resource needs will be incorporated into plans. There will be a refinement of existing trail plans to insure responsiveness to increasing dispersed use. This goal calls for improving the quality of data gathered on dispersed recreation use and opportunities in areas of heavy use. Visual absorption inventory will be intensified. One cultural resource property will be nominated to the National Register annually till the potential is reached. Sanitation and trailhead facilities will be added as appropriate, based on use. The development of interpretive associations will be encouraged. This goal will reconstruct an average of 5 to 7 miles of trails annually; and constructs an average of 5 to 7 miles of trails to accommodate increasing use.

Wildlife. All standards and guidelines are the same as Goal 1, with the following additions:
Range studies will be converted on a site specific basis, particularily on those areas with a wildlife management emphasis. The number of studies will increase over goal 1. Plans and inventories will be developed on as case-by-case basis. The number of plans and/or inventories will increase over Goal 1. Project related work will increase, increasing the need for prescriptions. The level of monitoring will increase over Goal 1. Structural habitat improvement will be for Management indicator species, and selected wildlife species.

Range. This prescription is similar to Goal 2 but with these exceptions: Emphasis is placed on intensive management systems, where cost-effective, for allotments outside wilderness areas. Opportunities to increase forage production by vegetative manipulation and to convert secondary range into primary range will be exercised. Permittee participation in non-structural as well as structural improvements will be sought. Extensive Management systems will be applied to allotments within wilderness areas. Stocking will be based on proper use criteria compatible with the wilderness values. Priority will be given to arresting range deterioration on allotments in wilderness areas over allotments outside of wilderness areas. Permittee cooperation as well economics will be important criteria in monitoring of grazing within wilderness areas.

Wild Free-Roaming Horses and Burros. This prescription is similar to Goal 4 but with this exceptions. The opportunity to enhance WH&B populations using structural and non-structural range improvements will occur primarily on territories outside of wilderness areas.

Timber. The following are the same as Goal 1:
Timber resource management planning and inventory guideline; silvicultural examination and prescription standards and guidelines; reforestation (backlog) guideline; pinyon pine nut standards; and insect and disease surveys and suppression guideline.

The following are the same as Goal 4:
Law enforcement standards and guidelines.

The following are deviations from either Goal 1 or Goal 4:
Timber areas within wilderness areas will be removed from the timber base.

Planning needed within wilderness areas will be done to monitor stand conditions. Planting will not be done for timber management purposes. Planting may be done for other resources within wilderness areas. Timber management does not apply within wilderness areas. Requests for timber on mining claims will be reponded to, and a sound silvicultural procedure will be prescribed that maintains the character of the stand to preserve wilderness values. Insect and disease activities will be monitored within wilderness areas. Control measures will be considered and undertaken if the insects or disease are seriously affecting wilderness qualities.

TIMBR6 and TIMBH6 - There will no timber management under this goal.

Soil and Water. This goal prescribes that the necessary data base be provided for the best management of the soil and water resources. Soil and water inventories will be fully coordinated with the inventories of the other program elements. Planning will be used to develop managment options relevant to soil and water related improvements and/or problems. This goal calls for rehabilitation of areas where resource damage has occurred. Watershed improvement techniques will be used (in coordination with the other resource elements) to improve declining watershed conditions. Administration levels will be commensurate with the work outlined within each prescription narrative. FERC hydroelectric projects will be handled on a case by case basis. All Bureau of Reclamation withdrawls will be maintained. All agreements with municipalities to manage municipal watersheds will remain at the same level through the prescriptions. This goal provides for adequate water to maintain, and provide for all natural resource values and uses. It maintains watershed improvement structures to the point necessary to perpetuate their useful viability. Monitoring will be done to maintain an appropriate data base in evaluating management impacts on soil and water resources.

Minerals. All withdrawls and land exchanges will contain mineral report evaluations. This prescription proportionately will have the least amount of outputs for this activity. Mineral withdrawls will be virtually nonexistent, except for Research Natural Areas (RNA). All RNA's on the Forest will be prioritized and scheduled for mineral withdrawl. Land acquisition and exchanges will be at a minimum. There will be no inventory of either special geologic areas, nor common variety mineral materials. Validity examinations will be used to prevent unauthorized mining related activities. The validity examination procedure will also be used to substantiate mining related patent applications, and will be handled on a case by case basis. Validity examination will be conducted on all operations proposed within RNAs not withdrawn and wilderness areas (designated or proposed). No new claims will be filed after December 31, 1983 (Wilderness Act 1964). Each NOI or OP accepted will be processed in the same manner througout the prescriptions. Programatic environmental assessments will be developed to identify areas sensitive to mining on each district. This goal will conduct a detailed assessment of 70% of the NOI's and OP's submitted on the Forest. There will be a review of all lease applications submitted by the BLM, in a timely fashion, and recommendations made to protect the necessary surface resources. Mineral activities will be administered to the level necessary to insure compliance with federal and state regulations.

Fire Management. Fire prevention will be at level 1 (passive). There will be passive media coordination and management of seasonal restrictions forest-wide. The public and cooperators will be used for fire detection and supplemented by force account as needed to keep acres burned at an acceptable level. Initial attack forces will productively support other elements and activities when pre-suppression objects have been met and when not on fires. This prescription supports the regional program, and places equipment on contract where feasible. Fire support and facilitating services will be maintained at a minimal level to maintain the organization. No major capital investments will be made. There will be passive fire cause investigations.

Facilities. The following are the same as Goal 1:
Transportaion system planning and inventory; bridge and major culvert preconstruction and reconstruction; road operation; facility maintenance; and dam administration.

The following are the same as Goal 3:
FA&O construction and reconstruction guidelines.

The following are the same as Goal 4:
All preconstruction engineering, construction, and reconstruction acitivities for arterial/collector roads and trails.

The following Table (TABLE E-1) shows the acres by management area prescription for each alternative. A list follows the table which describes the management area prescription, and gives the FORPLAN goal these prescriptions were derived from.

The previous mentioned standards and guidelines by goal are a condensed form of the "Forest Plan Standards and Guidelines" book. See also the FSM 219.27 and the Regional Guide for standards and guideline direction. These can be located at the Forest Supervisor's Office of the Toiyabe National Forest.

TABLE E-1 ACRES BY MANAGEMENT AREA PRESCRIPTION
In Thousand Acres

Prescription	Management 1	Management 2	Management 3	Management 4	Management 5	Management 6	Management 7	Management 8	Management 9	Management 10	Management 11	Management 12
1. Wilderness-Designated and Recommended			4.9	49.2	135.1			94.6				32.0
3. Intensive Wildlife and Dispersed Recreation		90.2	32.4	118.8		405.2	180.8	441.5	408.1	496.9		12.5
4. Stewardship Wildlife, Range, and Recreation							87.0		27.3	54.0	13.5	
5. Market Opportunities						14.0		5.1				
6. Wild Horses, Wildlife, and Dispersed Recreation						186.0				177.6		
10. Moderate Timber and Range	25.0											
11. Market Opportunities and Developed Recreation			77.3	84.9								

Management Area Prescription

1. Wilderness - Designated and Recommended - This prescription (Rx) is designed to manage the established and recommended Wilderness Area to meet objectives and intent of the Wilderness Act (GOAL 6 in FORPLAN).

3. Intensive Wildlife and Dispersed Recreation - This Rx emphasizes the amenity values of Wildlife and Dispersed Recreation (GOAL 4 in FORPLAN).

4. Stewardship Wildlife, Range and Recreation - This Rx is a maintenance level program level close to current level Management (GOAL 3 in FORPLAN).

5. Market Opportunities - Rx emphasizes Timber/Range programs (GOAL 5 in FORPLAN).

6. Wildhorses, Wildlife and Dispersed Recreation - Rx is similiar to Rx 3 except emphasizes Wildhorse Management in the areas of significant wildhorse populations (GOAL 4 in FORPLAN).

10. Moderate Timber and Range - Rx emphasizes Timber/Range at moderate level of Management intensity (GOAL 5 in FORPLAN).

11. Market Opportunities and Developed Recreation - This Rx emphasizes Developed Recreation, Range and Timber with primary emphasis on Recreation (GOAL 5 in FORPLAN).

APPENDIX F

BIOLOGICAL EVALUATION OF THREATENED AND ENDANGERED SPECIES
Toiyabe National Forest

I. Listed Species

The listed species subject to this evaluation are the only Federally classified species which occur on the Toiyabe National Forest and are listed below.

A. Bald Eagle (Haliaetus leucocephalus) (E)
Peregrine Falcon (Falco peregrines) (E)
Lahontan Cutthroat Trout (Salmo clarki henshawi) (T)
Paiute Cutthroat Trout (Salmo clarki seleniris) (T)

B. Occupied Habitat

1. Bald Eagle - Bald eagles occur within the Toiyabe National Forest boundary however, there are no known nesting areas or potential breeding habitat. Habitat for bald eagles currently consist of resting areas for migrating eagles, one known night roosting site, and wintering foraging areas at some of our larger high altitude lakes. As these lakes become frozen bald eagles move to lower elevations off the forest.

2. Peregrine Falcon - Historically, it is thought the Toiyabe provided nesting and foraging habitat for peregrine falcons. There are no known peregrine nest sites on the forest although there is a possibility an eyrie could exist without our knowledge. Current peregrine use on the forest is thought to be only for migratory falcons. There may be potential to reintroduce peregrines on the forest, particularly the Carson and Bridgeport RD.

3. Lahontan Cutthroat Trout - Lahontan cutthroat trout (CT-L) formally occurred and still occur on four Ranger Districts on the Toiyabe National Forest. The current distribution and population is much reduced from former levels.

4. Paiute Cutthroat Trout - Paiute cutthroat trout (CT-P) occur only in Silver King drainage of the Carson Ranger District. All of the native habitat of CT-P is on Carson RD and as with CT-L populations and distribution of CT-P is reduced to remnants of their former range and numbers.

C. Analysis of Effect

1. Bald Eagle - A no effect situation is expected on the bald eagle with the preferred alternative. Since the forest provides very little bald eagle habitat and there are no changes proposed for the habitats that are used, no positive or negative effects are expected.

2. Peregrine Falcon - The preferred alternative provides for the enhancement of riparian habitats.

With improvement of riparian habitats, foraging areas for peregrines would also be expected to improve. Recognizing the potential to reintroduce peregrines and improved riparian habitats, the preferred alternative supports reintroducing peregrine falcons. A strong effort by the forest would be made to reintroduce peregrine falcons. The preferred alternative represents a positive effect on the peregrine falcon.

3. Lahontan Cutthroat Trout - In the preferred alternative there are strong riparian area standards and guidleines some of which are specific to streams with CT-L. There is specific direction regarding where CT-L will be reintroduced and references to following state (CT-L management plans and Fish and Wildlife Service recovery plans for CT-L. Delisting CT-L should occur within the life of the plan. The preferred alternative represents a positive effect on CT-L.

4. Paiute Cutthroat Trout - As with CT-L, the strong standards and guidelines for riparian areas and specific standards and guidelines for streams with CT-P indicate CT-P habitat will improve. The preferred alternative also stipulates adherence to the FWS Paiute Cutthroat Trout Recovery Plan. There is a good possibility CT-P would be delisted within the life of the plan. The preferred alternative represents a positive effect on CT-P.

II. Candidate Species

Candidate Species subject to this evaluation are listed below. There are no Proposed Species subject to a biological evaluation.

A. Animals

Mono Basin Mountain Beaver (*Aplodontia rufa californica*) CA.
Owens Valley Vole, (*Microtus californicus valliali*) Ca.
Spotted bat (*Euderma maculata*) Ca.
Swainson's Hawk (*Buteo swainsoni*) NV.
Ferruginous hawk (*Buteo regalis*) NV.
Mountain plover (*Charadrius montanus*) NV.

Plants

Sierra sedge, Carex paucifructus (2) Ca.
Mono buckwheat, Eriogunum ampullaceum (2) Ca.
Mono phacelia, Phacelia monoensis (2) Ca.
Tahoe yellow-cress, Rorippa subumbellata (1) Ca.

B. Occupied Habitat - The Mono Basin Mountain Beaver (MB), based on available literature, probably occurs throughout the Sierras in suitable moist habitats. At one time the Toiyabe considered the MB as a management indicator species (MIS). The MB was dropped as a MIS because of the lack of specific data on occupied sites and our ability to locate and monitor MB habitats and populations.

It is probable spotted bats occur at some time on the forest however, we have no specific knowledge of spotted bat habitat on this forest. The Las Vegas RD contracted a study to ascertain if spotted bats occurred on that Ranger District. The study did not locate spotted bats.

Swainson's hawk, the ferruginous hawk, and the mountain plover also probably occur on or utilize Toiyabe lands. As with the three candidate mammal species above, we have no specific data indicating nest sites or other key areas on the forest. The Toiyabe would appreciate any information the FWS could provide this forest on known key areas for any of the candidate wildlife species.

Plants

C. Analysis of Effect (Wildlife)

A no effect or positive effect assessment on all wildlife candidate species is warranted with the preferred alternative. This assessment is based on the following:

1. The forest is committed to maintaining viable populations of all native wildlife species.
2. Raptors such as the Swainson's and ferruginous hawks, generally receive more emphasis than other "non-status" wildlife. The ferrugrinous hawk is recognized in the document "A Program to Manage and Improve Fish and Wildlife Habitats on the National Forests of Nevada" as sensitive.
3. Riparian area management is emphasized in the preferred alternative thus MB habitat would be maintained or enhanced.
4. Very little vegetative manipulation is scheduled with the preferred alternative. Timber sales would not effect any candidate species perhaps with the exception of MB and meadows and other riparian areas would be protected.
5. Spotted bats are state listed (NV-Threatened or Rare). As data becomes available on key areas on the Toiyabe, appropriate protection for these habitats would be afforded.

Plants

The minimum management requirements (MMR's) of Alternative P provides management practices to discover the presence or absence of sensitive plants and to protect and enhance them. The alternative also contains standards and guidelines to maintain viable populations of each sensitive plant.

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